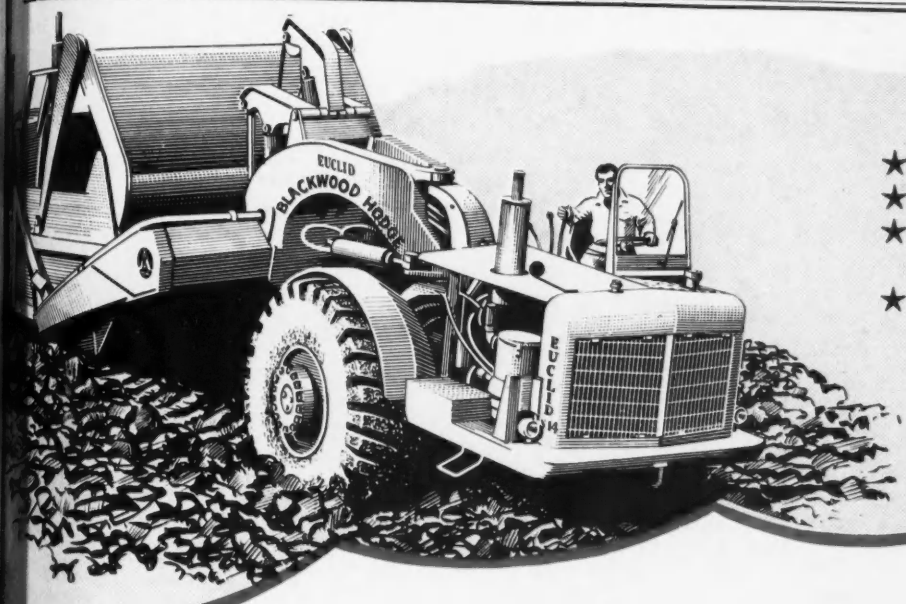
THE
CONTRACT JOURNAL
INCORPORATING
THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

No. 4,302 83rd YEAR THURSDAY, DECEMBER 7, 1961 PRICE 2/-



★ 280 Horsepower
★ No-Spin Differential
★ All Wheel Torqmatic Drive.
★ 14 Yard Struck—20 Yard Heaped

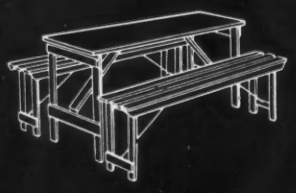
The Finest Scraper—
EUCLID TS-14

BACKED BY

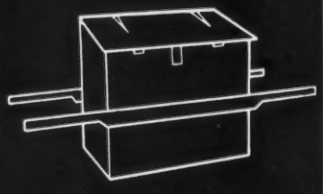
The Finest Service—
BLACKWOOD HODGE

Subsidiary Companies Branches Works and Agencies throughout the World









HARDUNS



As manufacturers of Buildings,
Mobile Site Offices and Ancillary Equipment,
we are able to offer you
immediate delivery from stock.
Our illustrated brochure sent with pleasure
upon request.

HARDUN & SONS LTD.
HORTON ROAD, WEST DRAYTON, MIDDX. Tel: West Drayton 3088-9 3761-2

INEXPENSIVE HANDLING of BULK MATERIALS



PARKER 'LOADASCREEN'

PORTABLE LOADER WITH VIBRATING SCREEN

The 'Loadascreen' saves greatly in handling time, speeds turn-around of lorries, does the unskilled work of several men, yet screens into two or three sizes at the same time. Up to 200 tons an hour on sand and gravel, with comparable rates for stone, coal, clinker, coker, quarry waste, etc. Can be fed by many methods: Water sprays can be fitted; mounted on pneumatic tyres for ease of handling; available with or without brakes. Boom lengths: 40ft. or 50ft. Discharge heights: 9ft. 8in., to 13ft. 3in. Hand operated or hydraulic elevation. Belt widths 18in., 24in., 30in. Petrol, Diesel or electric drive. Write for full details.

FREDERICK PARKER LIMITED
VIADUCT WORKS, LEICESTER
PHONES: LEICESTER 62331 (10 LINES)
LONDON · STAFFORD HOUSE, NORFOLK STREET W.C.2

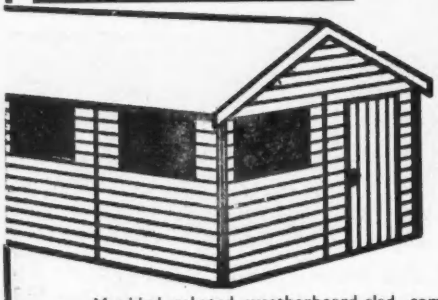
for the **WET SEASON**
you need
ALCON PUMPS
PETROL, DIESEL AND ELECTRIC.



ALL TYPES AND SIZES
AVAILABLE AT ONCE
Telephone: **SLOane 9976**

E. P. ALLAM & CO., LTD.
132/135 SLOANE STREET, LONDON, S.W.1
Hire & Service Depot: Corbetts Passage, Debnems Road, London, S.E.16
Factory: Arterial Road, Eastwood, Southend-on-Sea, Essex.

Immediate Delivery!
SITE CABINS by ASH



UNIT DESIGN

Moulded, rebated, weatherboard clad, complete with floors. All buildings 6′ 6″ to Eaves.

Example Sizes	Price
12′ x 12′	£78. 8.0
24′ x 12′	£137. 3.0
36′ x 12′	£197.12.0
24′ x 18′	£185. 4.0
36′ x 18′	£259. 4.0

Carriage paid 50 miles

***IMPORTANT**

SIZES OF CABINS QUOTED HERE ARE IN STOCK AND CAN BE PICKED UP WITHIN 24 HOURS OR DESPATCHED WITHIN 48 HOURS

ANY SIZE AND TYPE MADE TO ORDER

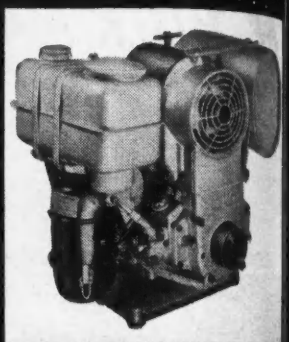
**Literature on request*

R. ASH & SON LTD., CHEETHAM HILL, MANCHESTER 8

Telephone: Cheetham Hill 6568

IF YOU MAKE PORTABLE PLANT . . .

MAKE IT MORE PORTABLE with JLO



DIESEL ENGINES

INCREASE OUTPUT: CUT WEIGHT AND COST

Power plus portability—that's what you get when you specify JLO diesels for your pumps, tractors, mixers, generating and welding sets and all other building and contractors' plant. A JLO diesel in the specification usually means at least a 50% saving in engine weight. It also means increased output for a given capacity, easier installation and maintenance. And because they are air-cooled, no starting troubles and temperament in hot and cold climates. Quick delivery too! Prototypes from stock, quantities in 4-6 weeks, and an off-the-shelf service for spares. Two models: 7 h.p., 3,000 r.p.m., and 13 h.p., 2,200 r.p.m. Write for leaflet and full details!

***Interested in the Continent?** As JLO are specially imported from West Germany's largest makers of diesel and petrol engines, their use in your plan means reduced duties.*

Sole concessionaires for JLO Engines and Transmissions.

INDUSTRIAL POWER UNITS LTD

1 MOUNT ROAD. TETTENHALL WOOD. NEAR WOLVERHAMPTON.
Telephone: Wolverhampton 52313. Cables: Powerit, Wolverhampton

DO YOU—
CUT TRENCHES IN THE ROAD
COMPACT IN TRENCHES
BREAK CONCRETE

?

— If so, we can certainly reduce your present costs by providing (sale or hire) an

ARROW
MOBILE HYDRAULIC
HAMMER

—please write or 'phone **LEMAND MACHINERY LTD.**
ROWSLEY, MATLOCK, DERBYSHIRE—Darley Dale 3391

CHECK THESE TECHNICAL ADVANTAGES FIRST!

Thousands of hours of user experience prove the technical advantages of the Shawnee Poole System of mobility and economy in earthmoving and industrial haulage. In addition, there is the safety of the Shawnee Poole coupling with its low mounting points, its three plane articulation and low centre of gravity. Easy maintenance is yet another feature, and remember the hundreds of Shawnee Poole users who are proving daily that the Shawnee Poole System is the simplest and most economical method of hauling earth. Ask us for a Job Survey on your site.

The Shawnee Poole System is manufactured under British and Foreign Patents granted and pending.

Shawnee Poole

SYSTEM OF MOBILITY AND ECONOMY IN EARTHMOVING HAULAGE



TEN SECOND TIPPING TIME

Faster tipping speed means savings in the overall time cycle, resulting in increased production and lower cost.

CONVENTIONAL FRONT WHEEL STEERING

Shawnee Poole has all the advantages of conventional front wheel steering for safer, faster travel speeds on haul roads or cross country, but none of the disadvantages of power-consuming hydraulically-linked steering.

...WITH TWO WHEEL STEERING WHEN YOU WANT IT

In deep mud, or on steep gradients, the weight transference principle allows the front axle to lift slightly and the disc type steering brakes enable the driver to retain complete steering control at all times.

DRIVER COMFORT

Bench-type foam rubber seat and excellent visibility with all-weather protection.

SAFETY AND DETACHABILITY

The Shawnee Poole coupling is mounted underneath and forwards of the centre line of the tractor's rear axle, ensuring maximum stability and complete driving wheel adhesion. Additionally, the low-level mounting points of the coupling eliminate the dangers of side thrust and ensure maximum driver safety. The tractor is quickly detachable from the hauler for service requirements.

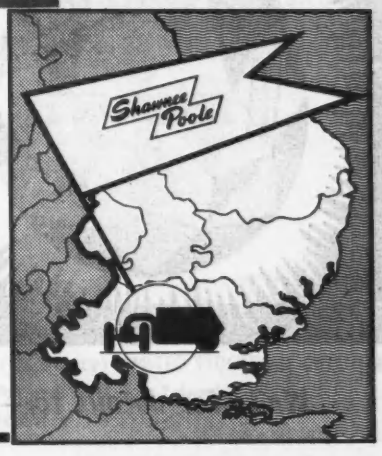
ERNEST DOE & SONS LIMITED

ULTING, MALDON, ESSEX

Telephone: HATFIELD PEVEREL 311

Your Dealer in:

Essex, Suffolk, Norfolk, Isle of Ely, Cambridge, Huntingdon, Hertford



More and More Civil Engineers & Local Authorities are using

CARTRUK MOBILE SITE UNITS

SITE OFFICES · CANTEENS · ABLUTIONS

CHALETVANS · LABORATORIES · DORMITORIES



22 ft. Director Model

Phone: STOCKPORT 5227/8

CARTRUK LIMITED

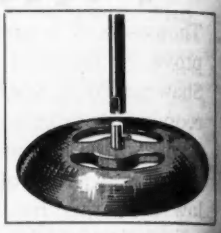
"BEEHIVE MILL", MARSLAND STREET, PORTWOOD, STOCKPORT

SAFETY PRODUCT

Danger Lamp Standards



Standards made from heavy gauge steel tubing fixed to a 30 lb. cast iron base. The stands carry a hook at the back to take roping.
For storage or packing they can be supplied with a quick release bayonet fixing as illustrated at no extra charge. Very suitable for road repairs or City and Borough Gas, Water and Electricity undertakings precluding the necessity of driving stakes into the road with subsequent repairs. Price with red and white or black and white stem £2 5s. 6d. Plain black stem £2 2s. 6d. Special discount quoted for Quantities. Height from top of tube to ground 3' 6".
Please state width and thickness of lamp handle when ordering.

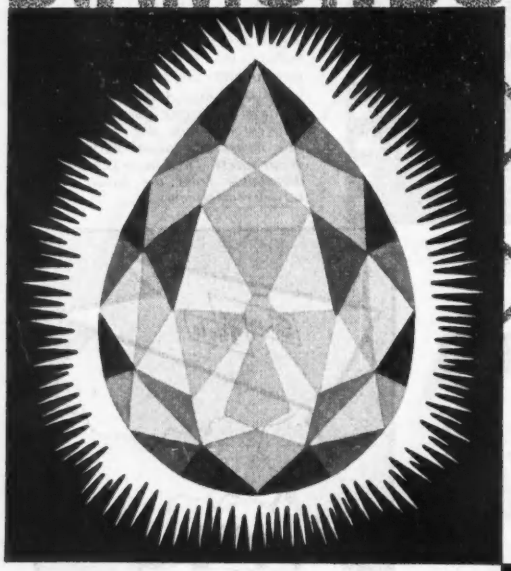


ALTERNATIVE BAYONET FIXING

PRICE: £2.5.6 and £2.2.0

PUBLIC WORKS PRODUCTIONS (COVENTRY) LTD.
8 STATION ROAD, KENILWORTH Telephone: Kenilworth 50

DIAMONDS last forever...

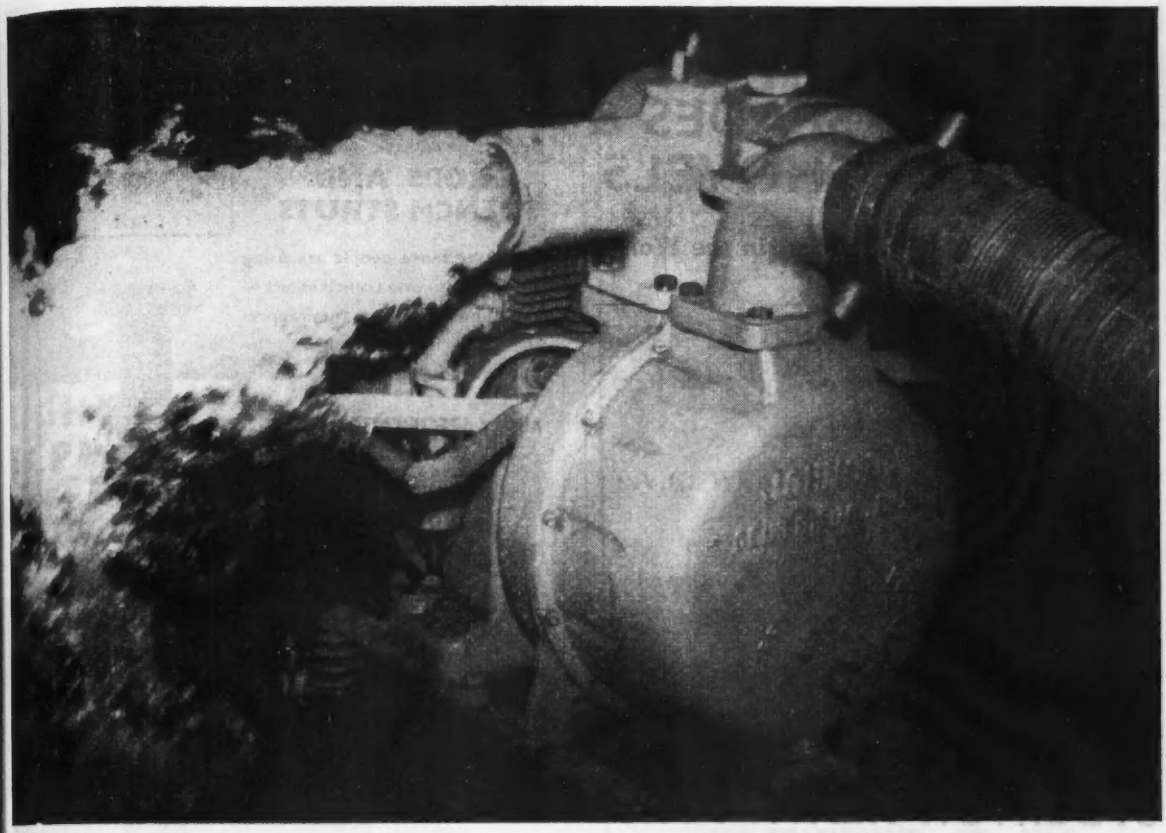




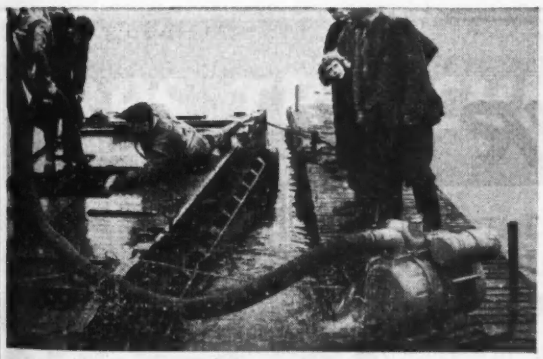
These 'diamonds', the pattern formed by 'Plastella' Chain Link Fencing, are protected from rust and corrosion by a plastic coating over galvanised wire. It means a lasting long life to each link and a trouble-free job for ever. Available in Green or Black.

Write for details to:—

J. B. CORRIE (Flextella) LTD.
PETERSFIELD · HANTS · TEL: PETERSFIELD: 1255-9



Above 3" Portable Pump Mk 9A. Capacity 10,000 GPH.
Below 2" Portable Pump Mk 8A. Capacity 7,000 GPH.



JOHNSON 'FASPRIME' RAPID PRIMING PUMPS with dual seal

- ★ 'Dual Seal' proved by 1,000 hour test continuously handling 43% sharp sand in suspension.
- ★ Fastest Priming. Highest Suction.
- ★ Handle seepage at low engine revs.
- ★ Adequate horse-power for the duty.
- ★ All wearing parts corrosion-resistant — easily and cheaply replaced.
- ★ Sizes — 2", 3" and 4" Centrifugal Pumps. 3" Mud Pump.
- ★ Petrol, Diesel, Electric or Independent Drive.
- ★ Service and Spares within 24 hours.

C. H. JOHNSON (MACHINERY) LIMITED
ADSWOOD · STOCKPORT · CHESHIRE

• Please arrange for a demonstration on .....

at .....

• Please send us full details of your range of pumps.
• *Delete if not required.*

NAME .....

ADDRESS .....

.....

JOHNSON QUALITY PAYS

C. H. JOHNSON (Machinery) LIMITED STOCKPORT CHESHIRE
Telephone : STOckport 2642/5. Telex 66-297.
Telegrams : 'Machinery' Stockport.

FOR DUMPERS · MUD PUMPS · CENTRIFUGAL PUMPS · POWER RAMMERS · POKER VIBRATORS · SCREED VIBRATORS · FIXED AND MOBILE CONVEYORS
London Sales and Service Depot: 38/44 Lower Richmond Road, S.W.14. Tel: PROspect 7671. Scottish Spares and Service Depot: 119 Whitefield Road, Govan, Glasgow S.W.1. Tel: Govan 2701

CALDWELLS

Original (Patent)
Solid Blade

SPADES & SHOVELS

"The Best in the World"



STOCKTON 1770 HEATH

TRADE MARK

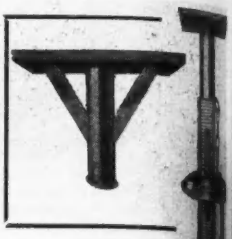
UNEQUALLED FOR STRENGTH AND DURABILITY

STOCKTON HEATH FORGE
CALDWELLS, LTD. **WARRINGTON**

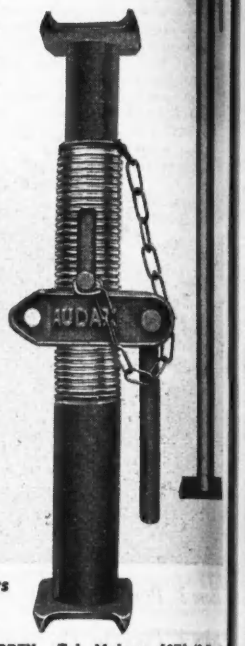
ESTABLISHED 1770 Ref. 112D

AUDAX

PROPS AND TRENCH STRUTS



More and more people are using Audax props and trench struts — proof positive that they represent the finest value on the market today.



AUDAX SPECIFICATION IS:-

1. Tube to B.S. 1775, grade 16, 6 gauge Outer, 8 gauge inner.
2. ¾" dia. Pin, high tensile steel to ENQ 8.
3. Heavy nut with 8 full threads.
4. Extra heavy 5/16" top and bottom plates (½" on Beam Head).
5. Slots are milled not punched to avoid crystallization.
6. Retaining rods fitted to Trench Struts.

BUY AUDAX FOR SAFETY FIRST

Direct from the actual manufacturers

AUDAX

CENTRAL AVENUE, WEST MOLESEY, SURREY Tel: Molesey 6071 (8 lines)

The TRUCKAIR

New lorry-mounted compressor that has everything!

Lead Wool's famous AC3F reciprocating type compressor mounted on a special Ford chassis, becomes the 'Truckair'— the finest, most versatile, mobile plant of its type to date.
It is capable of operating two heavy concrete breakers at the same time with power to spare; extremely manoeuvrable; simplicity itself to service; easily removed from the chassis; rugged, foolproof, built to last.
We will gladly send you full details of this new mounted compressor without obligation. Write or telephone.



Brief Specification

COMPRESSOR: 2-stage type AC3F, giving 120 cu. ft. per minute at 100 lb. per sq. in.
Powered through Centrifugal clutch, by Ford 592E Diesel.

CHASSIS: Adapted Ford petrol, length 13′ 7″, width 5′ 6″. *Turning circle only* 35′ 5″.
Extremely low-mounted for easy access.
Weight, complete with compressor, 48 cwt.

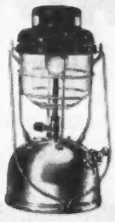
Only 6 bolts need be removed to detach compressor from chassis.
A steel truck body (extra) allows chassis to be used for other work.

THE LEAD WOOL COMPANY LIMITED
SNODLAND · KENT · TELEPHONE SNO 7

MANUFACTURERS OF: **LEAD WOOL** *for jointing cast iron and steel pipes, metallic packings, metal powders, pressure testing tools and appliances*



LIGHT OF EXPERIENCE



Men on the spot . . . men who don't write many memos but just see that the job is done on time . . . these are the types who know by long experience that Tilley lamps never let them down. For general utility lighting on the site they specify . . .

TILLEY PARAFFIN PRESSURE STORM LANTERN — Model X246A

★ self-contained ★ storm-proof ★ easily portable ★ lasts a lifetime

PRICE 77/6

For special purposes they rely on one or another of the wide Tilley range of flood-lights, spot-lights, inspection lamps, etc., operating on either Paraffin or Propane/Butane, the no-mains L.P. gas for portable use.

TILLEY

Please send for illustrated leaflets or let us have details of your specific requirements.

THE TILLEY LAMP COMPANY LIMITED, DUNMURRY, NORTHERN IRELAND

London Office: 116 Colindale Avenue, London, N.W.9. Colindale 8111

TIMEG....

UNBEATABLE FOR PROTECTION AND PRICE!



DONKEY JACKETS
of every description, in various qualities and styles.

LEATHERETTE or LEATHER TRIMMED.

SHOWERPROOF.

LINED THROUGHOUT.

Outsizes are included in our standard range.

P.V.C. WEATHERPROOF WEAR



FOR WORK THIS WINTER

Egyptian Cotton or linen supported.

French double seamed, welded throughout.

LONG COATS—JACKETS—TROUSERS
LEGGINGS—SOU'WESTERS

Expert advice given FREE—Write Phone or Call

TIMEG LIMITED

102 WARDOUR, ST., W.1

Telephone: GERrard 4411/2/3

ARPS TRENCHING MACHINERY



The ARPS L-12 trencher

THE NEW ARPS TRENCH DEVIL
MODEL L-12

- DEPTH OF DIG: maximum 5′ 6″
- TRENCH WIDTHS: 2″, 4″, 6″, 8″, 10″ and 12″
- BOOM CONTROL: Hydraulic giving down-pressure as well as lift.
- DIRT DISPOSAL: conveyor type may be put on either side quickly.
- NUMBER OF DIGGING SPEEDS in both forward and rearward directions; infinite — no limit.



View showing trenching boom

SOLE CONCESSIONAIRES IN U.K. AND EIRE

A. J. SAUNDERS (TRACTORS) LTD. STILTON, Nr. PETERBOROUGH
Tel.: YAXLEY 521-522 Cables: PLAYAX, ENGLAND

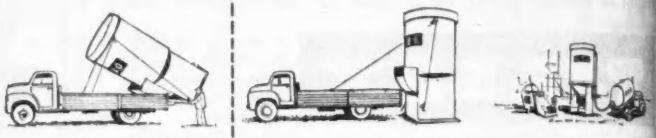
DUMBO
REGD.

SELF-ERECTING HOPPERS

OFFER ALL THESE ADVANTAGES



ONE MAN CAN LOAD OR UNLOAD AND ERECT IN A FEW MINUTES



One man can load and unload the Dumbo by means of the patented Cam and Winch loading system and no additional lifting device is needed.

EASILY TRANSPORTABLE FROM POINT TO POINT

ROBUST STEEL CONSTRUCTION - LESS DAMAGE PRONE

THE PATENTED AIR FILTER FACILITATES SPEEDY FILLING AND OBVIATES WASTE THROUGH DUSTING

AUTOMATIC WEIGHING—WITH ADDITIONAL DISPENSER CAN FEED TWO MIXERS

Patent Numbers : 764310 & 764311

12, 20 and 30 ton models available from stock, larger sizes made to order.

BEST FOR BULK

DUMBO Regd. *saves time and money on any contract*

Enquiries to :

ABELSON & CO. (ENGINEERS) LTD
Sheldon · Birmingham 26
Telephone : SHEldon 2424 (10 lines)

AMALGAMATED LIMESTONE CORP. LTD
Bulk Handling Dept · 15 Stanhope Gate · London W.1
Telephone : GROsvenor 3611 (10 lines)

Also at: ABELSON · Manchester · Tel: Trafford Park 2536 and ABELSON · London · Tel: Macaulay 3407

SCOTLAND : J. & W. Henderson Ltd · Upper Quay · ABERDEEN · Tel : CENTRAL 29313 Johnstons & Paton Ltd · 8 Newton Place · GLASGOW C3 Tel : DOUGLAS
NORTHERN IRELAND : McNeill (Engineering) Ltd · 78 Duncrue Street · BELFAST 3 · Tel : BELFAST 745211/6
EIRE : McNeill (Ireland) Ltd · Collinstown Cross · Cloghran · Co. Dublin · Tel : DUBLIN 371601/2

TO HIRE A JCB

CONTACT ANY OF THE FOLLOWING PLANT HIRE FIRMS . . .

20th CENTURY EQUIPMENT COMPANY (LONDON), LTD.
Phone: Cunningham 0291

M.M. PLANT, LTD.
39 Highfield Road, Dartford
Phone: Dartford 23993/23380

GENERAL ROADWORK, LTD.
616 Mitcham Road, Croydon
Phone: Thornton Heath 6989

F. N. ADDISON, PLANT HIRE
Westmore Road, Tatsfield. Westerham, Kent
Phone: Tatsfield 464 and East Grinstead (Sussex) 4476

WAGER'S PLANT HIRE, LIMITED
Hire — Sales — Service
Essex Road, Hoddesdon, Herts.
Phone: Hoddesdon 4433/4

BARRIE A. HILL AND CO. PLANT HIRE
"Parklands," Forest Green, Dorking
Phone: Forest Green 219

F. PUDDEPHATT AND CO.
Russell View, London Road, Wendover, near Aylesbury, Bucks.
Phone: Wendover 3164 and Aylesbury 4902

W. BIRD, PLANT HIRE
New Broad View Farm, Bedfont Road, Stanwell, Middx.
Phone: Ashford 3627-5183

E. R. S. FOSTER, CONTRACTORS
Howe Street, Great Waltham, Chelmsford, Essex
Phone: Little Waltham 468 and Rayleigh 1211

PARDIX PLANT ENGINEERS, LTD. ALL CONTRACTORS' PLANT
Phone: Waltham Cross 23496 and 24913

R. A. WOOFF (PLANT HIRE), LIMITED
Phone: Wokingham 2060

GENERAL ROADWORK, LTD.
Eastgate Wharf, Lewes, Sussex
Phone: Lewes 2291

R. A. CONTRACTORS (CULFORD), LTD.
Bury St. Edmunds, Suffolk.
Plant Hire and Earth Moving Contractors
Phone: Elveden 73

K. AND K. PLANT HIRE (GRAVESEND), LTD.
1a Devonshire Road
Phone: Gravesend 7914 (Day or Night)

TATE PLANT HIRE, LTD.
17 Redriff Road, Rotherhithe, London, S.E.16
Phone: Bermondsey 2211

ALDERMAN AND SONS
61 High Street, Whitchurch, near Aylesbury, Bucks.
Phone: Whitchurch 288

DRAGON PLANT HIRE, LTD.
Walnut Tree Close, Guildford, Surrey
Phone: Guildford 67277/8

CHAMBERLAIN PLANT, LIMITED
Crown Works, Southbury Road, Enfield, Middx.
Phone: HOWard 4994

LINK PLANT LIMITED
Bury Street, Ruislip, Middlesex
Phone: Ruislip 3344 and 5561

G. A. RAWLINSON
Plant Hire and Earth Moving
Phone: Hatfield 2264; (Night) Welwyn Garden 26117

M. AND J. ENGINEERS, LTD.
All Types of Contractors' Plant for Hire throughout Home Counties
Phone: Welbeck 0702/4

R. B. TYLER (WARE), LTD.
Agricultural and Plant Hire Contractors
Smith End, Barley, Royston, Herts.
Phone: Barkway 363; (Night) Royston 2075

W. VAN TROMP
"Scotlands," West Chiltington, Nr. Pulborough, Sussex
Phone: West Chiltington 2204

POWER PLANT HIRE (BEDDINGTON), LTD.
Matbro House, Beddington Lane, Croydon
Phone: Dorking 73112

JOHN A. FORD EXCAVATIONS
Lodge Farm, Holmwood, Dorking, Surrey
Phone: Dorking 73112

J. F. TAYLOR AND SONS
114 High Road, North Weald, near Epping
Phone: North Weald 334 (Day or Night)

HARRISON PLANT, LTD.
443 Old Ford Road, Bow, London, E.3
Phone: Advance 5484/5

OR CONTACT



Ernest Doe AND SONS LTD.

HEAD OFFICE - ULTING MALDON ESSEX. *Tel: Hatfield Peverel 311 (Night 319)*

LONDON • Therapia Lane, Mitcham Road, Croydon

TELEPHONE: THORNTON HEATH 4041 (day or night)

SOLE DISTRIBUTORS FOR

London, Middlesex, Surrey, Essex, Hertfordshire, Bedfordshire, E. Sussex, Kent, Cambridgeshire, Hunts, Suffolk and Norfolk.

Cliftons

ARE PROUD TO PRESENT THEIR

NU-LYNE Range

OF CONTEMPORARY SECTIONAL BUILDINGS



ALL TYPES OF SECTIONAL TIMBER BUILDINGS AND MOBILE SITE OFFICES ALSO AVAILABLE

- SCHOOL CLASSROOMS
- SITE OFFICE ACCOMMODATION
- OFFICE EXTENSIONS
- LIBRARIES
- CANTEENS
- HOSPITAL EXTENSIONS
- VILLAGE HALLS, ETC.



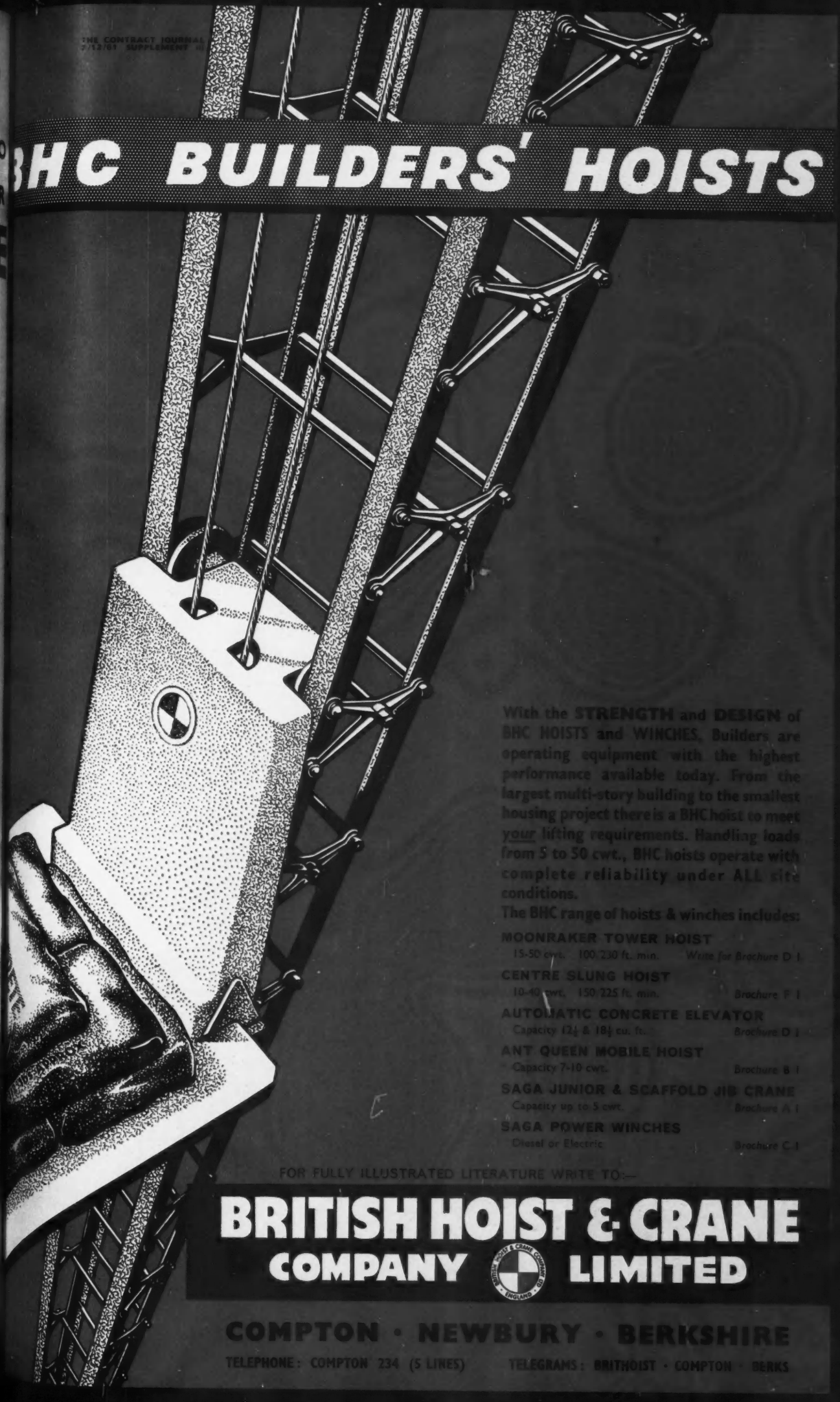
I. CLIFTON & SONS LTD.

13, NEELD PARADE · WEMBLEY · MIDDX.

TELEPHONE: WEMbley 2921/3

WRITE FOR FREE BROCHURE. DEPT. C.J.

BHC BUILDERS' HOISTS



With the **STRENGTH** and **DESIGN** of BHC HOISTS and WINCHES, Builders are operating equipment with the highest performance available today. From the largest multi-story building to the smallest housing project there is a BHC hoist to meet *your* lifting requirements. Handling loads from 5 to 50 cwt., BHC hoists operate with complete reliability under ALL site conditions.

The BHC range of hoists & winches includes:

MOONRAKER TOWER HOIST
15-50 cwts. 100-230 ft. min. *Write for Brochure D 1*

CENTRE SLUNG HOIST
10-40 cwt. 150-225 ft. min. *Brochure F 1*

AUTOJATIC CONCRETE ELEVATOR
Capacity 12½ & 18½ cu. ft. *Brochure D 1*

ANT QUEEN MOBILE HOIST
Capacity 7-10 cwt. *Brochure B 1*

SAGA JUNIOR & SCAFFOLD JIB CRANE
Capacity up to 5 cwt. *Brochure A 1*

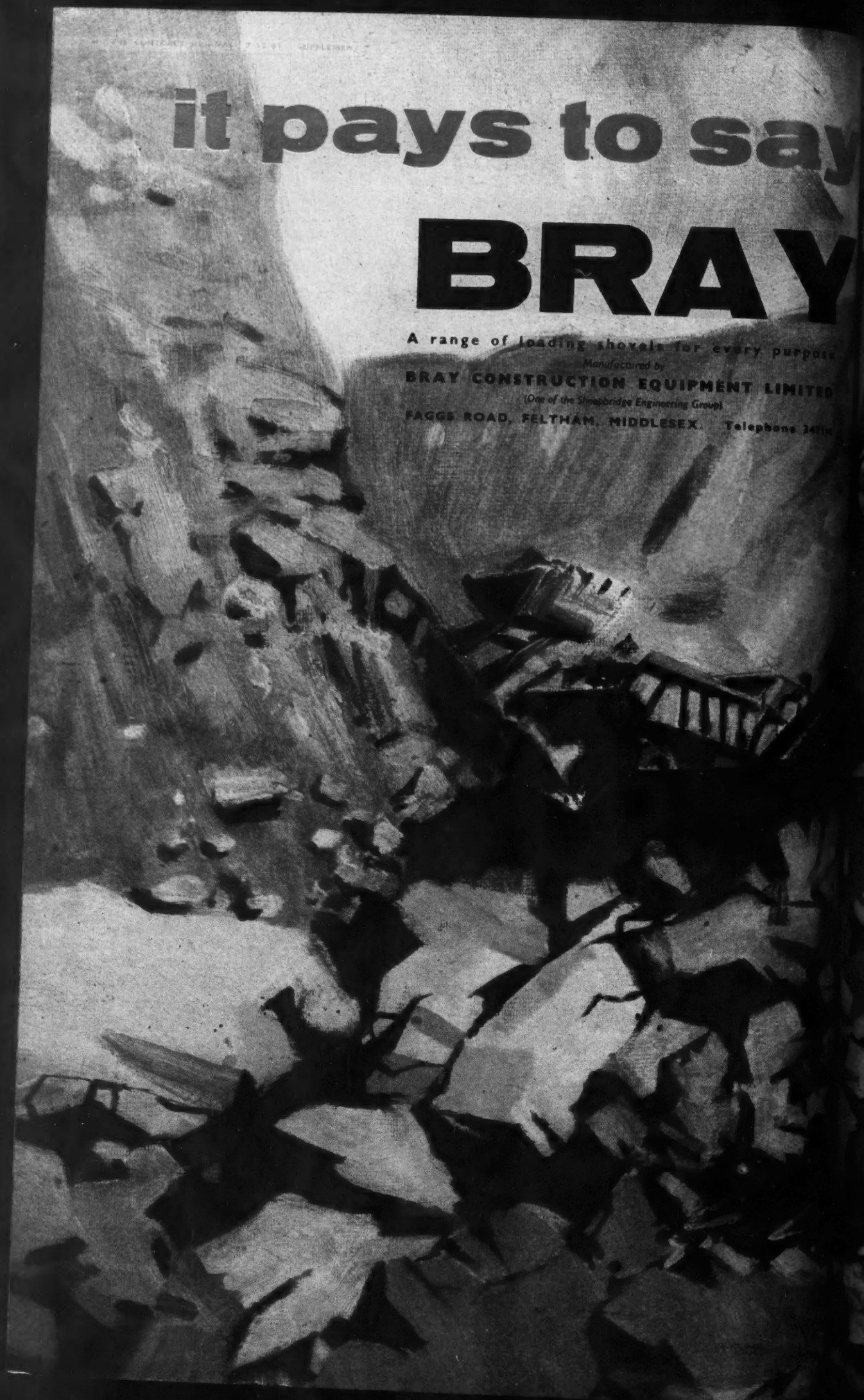
SAGA POWER WINCHES
Diesel or Electric *Brochure C 1*

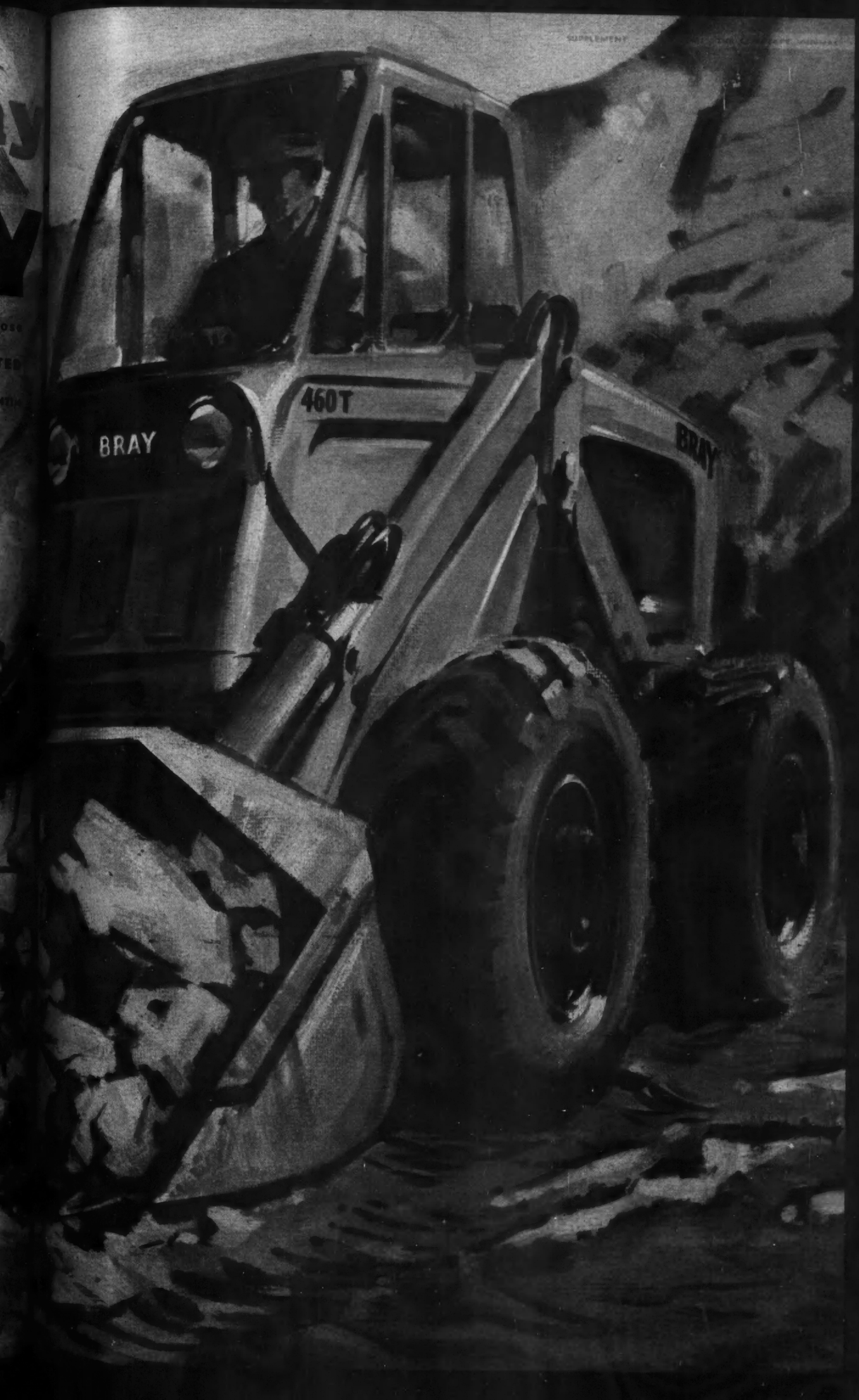
FOR FULLY ILLUSTRATED LITERATURE WRITE TO:—

BRITISH HOIST & CRANE COMPANY LIMITED

COMPTON · NEWBURY · BERKSHIRE

TELEPHONE: COMPTON 234 (5 LINES) TELEGRAMS: BRITHOIST · COMPTON · BERKS


it pays to say
BRAY
A range of loading shovels for every purpose
Manufactured by
BRAY CONSTRUCTION EQUIPMENT LIMITED
(One of the Sheepbridge Engineering Group)
FAGGS ROAD, FELTHAM, MIDDLESEX. Telephone 347


460T
BRAY
BRAY

THE FANTASTICALLY STABLE

Poclain TY.45

360° SLEWING

PLUS ALL THESE EQUIPMENTS

- FACE SHOVEL
- BACK ACTER
- SCRAPER BLADE
- LOADER
- SKIMMER LOADER
- DITCHER
- TRENCHING GRAB
- BORING GRAB
- RE-HANDLING GRAB
- PAVING STONE SKIMMER
- COAL GRAB
- SCRAP GRAB
- BEET GRAB
- LIFTING CRANE
- TIMBER GRAB

HAVE YOU SEEN IT?



+

It all adds up to THE HYDRAULIC EXCAVATOR THAT'S YEARS AHEAD!

SOLE U.K. DISTRIBUTORS

MOORE'S

You must see this machine in action!

We shall be delighted to prove the Poclain's matchless performance by arranging a demonstration to suit your conditions.

MOORE'S PLANT LTD
Tel TOTtenham 0401 (10 lines)
105-129 MARKFIELD ROAD, TOTTENHAM, LONDON, N.15.
Grams: "Morplanlim", Southtot, London.

MO.172

Temperature normal with....



Leaderflush **BRITAIN'S FINEST FLUSH DOOR**

There are no temperature raising worries with LEADERFLUSH. Eminent Architects know this, and also that there is no more exacting application for flush Doors than that of the modern Hospital. Britain's first entirely new hospital to be built for many years, the Caernarvon and Anglesey Hospital at Bangor was equipped throughout with LEADERFLUSH FLUSH DOORS as will be the Hospital at Welwyn and Hatfield and many extensions to existing Hospitals ...

A LEADERFLUSH FLUSH DOOR retains it's quality indefinitely under the most arduous conditions.

Let us send you full details, write

Leaderflush (Doors) LTD, TROWELL, NOTTINGHAM

Telephone: Ilkeston 4111 (6 lines)

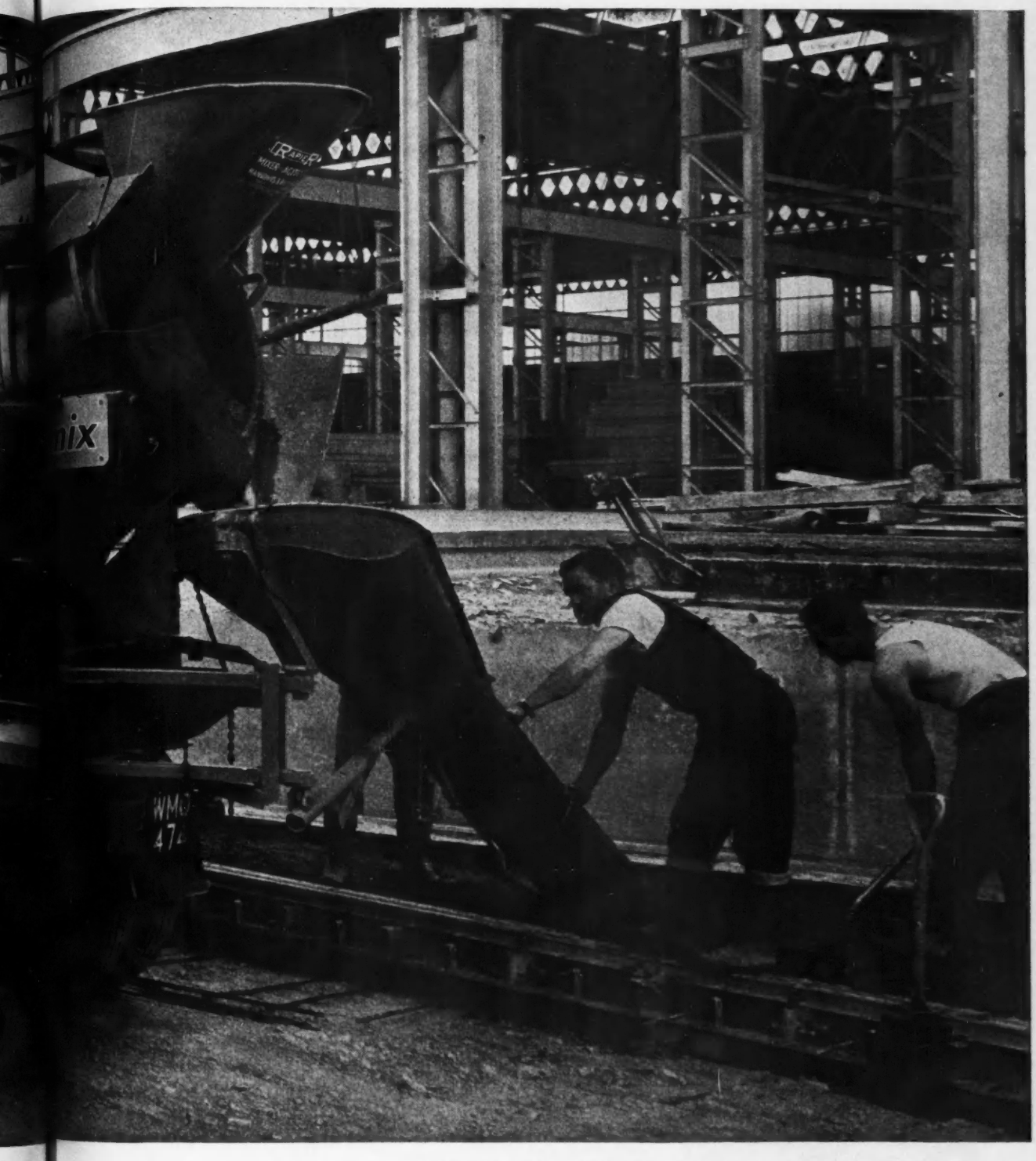
LONDON OFFICE: BUSH HOUSE, ALDWYCH, LONDON W.C.2 Tel: COVent Garden 2243



RAPIER TRUCK MIXER

give us bigger payload

ENQUIRIES INVITED FOR COMPLETE TRUCK MIXED CONCRETE INSTALLATIONS



Premix's 100th RapieR Truck Mixer makes a delivery to a Holland & Hannen and Cubitts contract

s is the hundredth RapieR truck mixer sup-
ed to Premix Concrete Limited, of Oxford,
ose 16 depots supply ready-mixed concrete
nine counties. Chosen, like all the others,
ause "RapieR give us bigger, more profit-
e payloads". There's the reason why RapieR
ck Mixers out-sell all others.

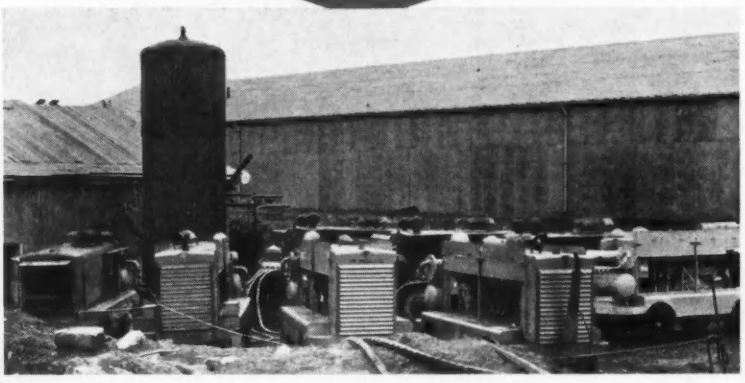
- Proved hydraulic drive—sure reliability
- Weight saved—bigger payloads
- Designed for the job—lower maintenance costs
- Unbeatable RapieR experience—initial costs pruned drastically

Sizes from 2½ cubic yards to 9 cubic yards

ANSOMES AND RAPIER LTD **IPSWICH AND LONDON**
A Newton Chambers Company

Proved in our fleet and all over the world.

WE SELL AP



Eight ARMD.625 Mobile Rotary Compressors. Photograph by courtesy of The Nuclear Power Plant Co. Ltd.

AP AIR PUMPS COMPRESSORS

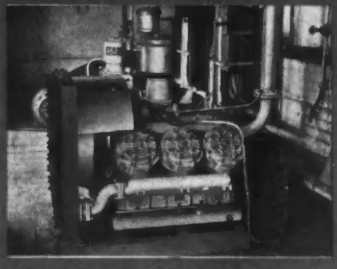
RECIPROCATING & ROTARY



MOBILE MACHINE



SELF PROPELLED



STATIONARY

★ BRISTOL PLANT HIRE have many reasons for having over 130 AP Compressors in the Hire fleet.
★ The Compressors with an international reputation for quality, reliability, strength and extreme efficiency under all temperature conditions.
★ Reciprocating and rotary types available. Reciprocating 1—6 tool sizes (60 c.f.m. to 300 c.f.m.) Rotary 4—12 tool sizes (250 c.f.m. to 600 c.f.m.)
★ Mobile—Truck mounted, Self Propelled and Stationary models available.
★ Easily maintained—maximum interchangeability of parts.
★ Full after-sales service.

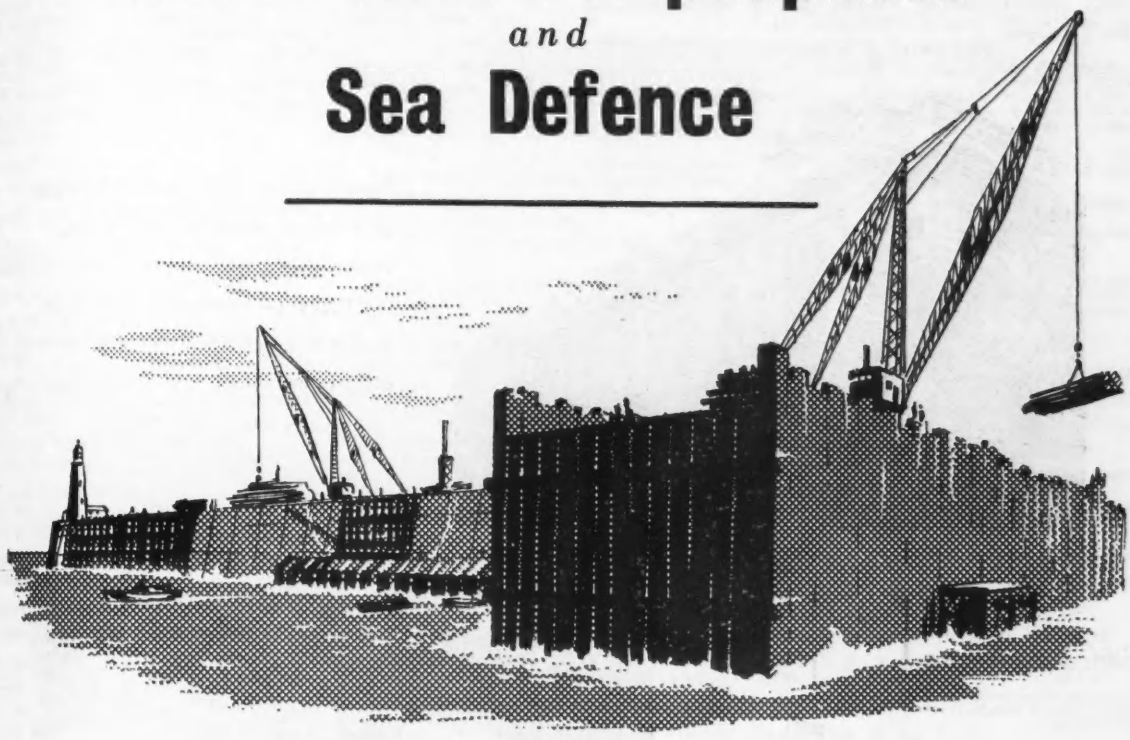
Photograph of the Mobile Compressor by courtesy of C. H. Pearce & Sons (Contractors) Ltd. of Bristol; Self-propelled machine—The County Borough of Newport, Mon.; The Stationary machine—The British Oil and Cake Mills Ltd., Avonmouth.

BRISTOL PLANT HIRE LTD

BRISTOL:	Bath Road, Bristol 4. Tel.: Bristol 70321 (6 lines).
NEWPORT:	Coronation Road, Cwmbran, Mon. Tel.: Cwmbran 3601 (5 lines). Site Office: Llanwern. Tel.: Llanwern 312.
EXETER:	Exwick Road, Exeter. Tel.: Exeter 59561.
BIRMINGHAM:	Wrentham Street, Birmingham. Tel.: MIDland 5447 (3 lines).
PORTSMOUTH:	Fareham Park Road, Fareham, Hants. Tel.: Titchfield 3124 (2 lines).
PLYMOUTH:	Elburton, Nr. Plymouth. Tel.: Plymouth 42525 (3 lines).

FOR SALE OR HIRE FROM ALL THE ABOVE BRANCHES

TIMBER
for
Constructional purposes
and
Sea Defence



JARRAH *and* KARRI
GREENHEART

DENNY MOTT & DICKSON LIMITED

Importers & Stockists of Hardwoods, Softwoods, Plywood & Wallboards

Adelaide House, King William Street, London, E.C.4. Tel: MANsion House 0550

Belfast, Birmingham, Bristol, Cardiff, Glasgow, Hull, Liverpool, Manchester, Newcastle, Preston, Southampton

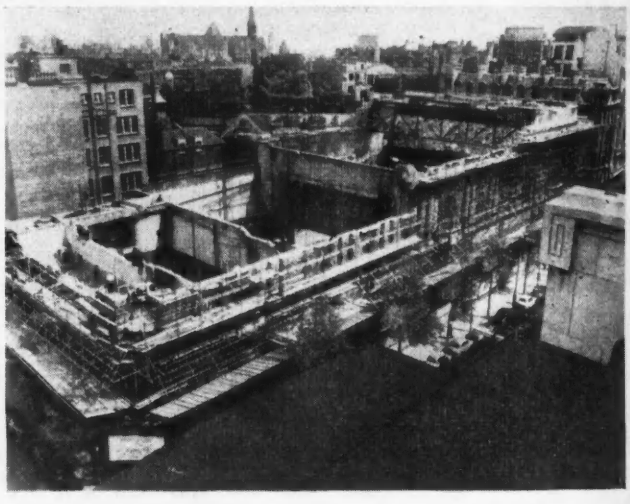
AP89

DEMOLITION

. . . a job for the SPECIALIS



Demolition is a skilled vocation. To engage the services of unqualified men is inviting trouble. The employment of a member of the N.F.D.C. is an assurance that demolition work will be carried out with speed, economy, efficiency and safety.



Stoll Theatre Demolition



The members listed opposite are prepared to quote for work in any part of the country. For further information apply:

THE SECRETARY, THE NATIONAL FEDERATION OF DEMOLITION CONTRACTORS, 20/21 PRINCES STREET, HANOVER SQUARE, LONDON, W.1. Telephone: MAYfair 4768/9.

These are the people to contact



ALLISON SAMUEL B. LTD.,
48 Whitevale Street, Glasgow, E.1.
BRIDGETON 3881

ASHTON R. AND SONS (STOKE NEWINGTON) LTD.,
109 Stoke Newington Road, London, N.16.
CLISSOLD 0081-2

BARLBOROUGH METALS LTD.,
High Street, Barlborough, Derbyshire.
CLOWNE 112

BENNETT BROS.,
Spekes Road, Wigmore, Gillingham, Kent.
RAINHAM 81375

BISHOP SYD. & SONS (DEMOLITION) LTD.,
"Acrefare," Sundridge Avenue, Bromley, Kent.
RAVENSBOURNE 1400
56a Mooreland Road, Bromley, Kent.
RAVENSBOURNE 6747

BLAIR ALAN,
28 Southend Avenue, Darlington, Co. Durham.
DARLINGTON 66272

BRAMWELL H. LTD.,
1141 Aldridge Road, Perry Barr, Birmingham, 22A.
GREAT BARR 3234

BURFORD TAYLOR & CO. LTD.,
20/26 Church Street, Middlesbrough.
MIDDLESBROUGH 2622 and 2623

BUTTON W. & SON,
200 Prestwick Road, Carpenders Park, East Oxhey, Herts.
HATCH END 5309

CHARLES BRAND (DUNDEE) LTD.,
South Road, Lochee, Dundee.
DUNDEE 68233
Glasgow—295 Edmiston Drive, Glasgow.
GOVAN 3261
Aberdeen—35 Fraser Place, Aberdeen.
ABERDEEN 21441

CHARLES BRAND OF DUNDEE,
Scone, Perthshire.
SCONE 535

CHILDS JAMES,
Corby Road, Grimesthorpe, Sheffield, 4.
SHEFFIELD 387151/2

CLOKE GEO. E. LTD.,
"Elmsted," Neasden Lane, London, N.W.10.
GLADSTONE 1163 and 4296

COLES DEMOLITION & EXCAVATION LTD.,
174 Twickenham Road, Isleworth, Middx.
ISLEWORTH 3545 and 1585

COMPRESSOR & DEMOLITION CO. LTD.,
70/74 Stewart's Road, Battersea, London, S.W.8.
MACAULAY 7216/7

CONNELL & FINNIGAN LTD.,
44 Molyneux Street, Chorlton-on-Medlock, Manchester, 13.
ARDWICK 2523/4/5

CONTRACTORS (MANCHESTER) LTD.,
Greg Street, Reddish, Stockport.
STOCKPORT 4206-9

CUNNINGHAM M. & SON LTD.,
30 Brighton Road, Birmingham, 12.
BIRMINGHAM SOUTH 0654

DEMOLITION & CONSTRUCTION CO. LTD.,
3 St. James's Square, London, S.W.1.
TRAFALGAR 7833
Newcastle Area Office: 38-39 Exchange Buildings, Queens Street, Newcastle on Tyne, 1.
NEWCASTLE 2-9068
Liverpool Area Office: 34 Moorfields, Liverpool, 2.
CENTRAL 8319

D. G. ALDRIDGE DEMOLITION & CONSTRUCTION CO. LTD.,
45 Grosvenor Terrace, Cheltenham, Glos.
CHELTENHAM 3402
WORCESTER 23850
ANDOVERSFORD 204
GLOUCESTER 25945

DISMANTLING & ENGINEERING (MIDLANDS) LTD.,
Narrow Lane, Blackheath, Birmingham.
BLACKHEATH 1821—5 lines

DYGGOR CONTRACTORS LTD.,
Station Road, Ilkeston, Derbyshire.
ILKESTON 1143/4177/8/9

FLINTHAM B. LTD.,
Head Office: 24 Neasden Lane, Willesden, N.W.10.
WILLESDEN 6972
Plant Depot: 6 Neasden Lane, Willesden, N.W.10.
WILLESDEN 1333

GOODMAN PRICE LTD.,
Lincoln Chambers, Portsmouth Street, London, W.C.2.
HOLBORN 5093-4-5

GROOM W. (TRANSPORT) LTD.,
102 Ravenhurst Street, Camp Hill, Birmingham, 12.
VICTORIA 0943 and 3123

HARDWICK F. LTD.
Brunel Buildings, Armley Road, Leeds, 12.
LEEDS 23487

HARVEY C. P. LTD.,
Aberavon Yard, Port Talbot, Glam.
PORT TALBOT 3581 (after hours 2326)

HIGHFIELD DEMOLITION CO. LTD.,
45 Friern Barnet Road, New Southgate, N.11.
ENTERPRISE 7963

J. & A. DEMOLITION CO. LTD.,
Regents Corner, Wellington Road, Kensal Green, N.W.10.
WEST DRAYTON 2840
LADBROKE 3870 and 2360

JOHN HARRIS (BERMONDSEY) LTD.,
9 and 9a Tranton Road, Bermondsey, S.E.16.
BERMONDSEY 3241

JOHN HUNTER & SONS,
40/44 Duff Street, Edinburgh.
EDINBURGH DONALDSON 3281/2/3

KAYLEY WILLIAM LTD.,
Gornall Street, Oldham Road, Newton Heath, Manchester, 10.
FAILSWORTH 3731/2

KING A. A. & SONS (MORTAR MILLS) LTD.,
Brent Terrace, Cricklewood, London, N.W.2.
GLADSTONE 6050 and 1512

LEWISHAM DEMOLITION CONTRACTORS LTD.,
Chalk Pit Avenue Works, St. Paul's Cray, Kent.
ORPINGTON 20326-7-8

LINCS. HOLDINGS LTD., DEMOLITION CONTRACTORS,
Dixon Street, Lincoln.
LINCOLN 20276

LONDON DEMOLITION CO. LTD.,
575/577 London Road, Isleworth, Middx.
ISLEWORTH 7051—3 lines

LOOMS ALBERT LTD.,
41 King Street, Derby.
DERBY 45857

LYNCH B. & CO. LTD.,
53 Freeman Street, Coventry.
COVENTRY 88547

MAIDEN THOMAS & SON LTD.,
Lime Kiln Lane Works, Ardwick, Manchester, 12.
ARDWICK 2571

MEARS EBENEZER (CONTRACTORS) LTD.,
Cumberland Works, Byfleet, Surrey.
BYFLEET 45616

NEIGHBOUR BROS.,
89 Nursery Road, Southgate, London, N.14.
FOX LANE 0480
BARNET 7555

NORTH LONDON DEMOLITION & EXCAVATION CO. LTD.,
2 Windmill Road, Hampton Hill, Middx.
MOLESEY 3928

PENFOLD W. H. & SONS LTD.,
Belmont Grove, Lewisham, London, S.E.13.
LEE GREEN 2131 and 1624

PETER SCOTT (DEMOLITIONS) LTD.,
107 Spies Lane, Quinton, Birmingham, 32.
WOODGATE 2442

PINDER S. & SONS LTD.,
57a Church Street, Old Basford, Nottingham.
NOTTINGHAM 76079

POTTERIES DEMOLITION CO. LTD.,
145 Etruria Road, Hanley, Stoke-on-Trent.
STOKE-ON-TRENT 21208

RICHARDSON F. C. & SON LTD.,
130/137 Summer Lane, Birmingham, 19.
ASTON CROSS 1849

SCUDDER T. E. LTD.,
206-208 Western Avenue, Acton, London, W.3.
ACORN 0656/7973

SHARLAND B.,
Ongar Road, Writtle, Essex.
WRITTLE 352

ST. MARY'S (CONTRACTORS) LTD.,
273 Sussex Way, Upper Holloway, London, N.19.
ARCHWAY 1161-3

SPEARS (E. W.) & CO. LTD.,
Head Office: 53 Callander Road, Catford, S.E.6.
HITHER GREEN 3975
Kent Depot: 74 Crayford Road, Crayford.
CRY2-1276

TIDY S. M. (PUBLIC WORKS) LTD.,
161 Preston Road, Brighton, Sussex.
BRIGHTON 59261

TREMBLE A.,
Quarry Garage, Benton, Newcastle upon Tyne.
NEWCASTLE 66-3521/2

TURNER A. W.,
Pentyla Works, Pennant Street, Ebbw Vale, Mon.
EBBW VALE 2120

WALKER M. C. & SONS (WESTHOUGHTON) LTD.,
Wigan Road, Westhoughton, Lancs.
WESTHOUGHTON 3147

WATTS J. & SONS (CONTRACTORS) LTD.,
Porchester Road, Thorneywood, Nottingham.
NOTTINGHAM 55731—4 lines
BELPER 416

WEBSTER H. S.,
Phoenix Works, Tram Street, Platt Bridge, Wigan.
WIGAN 66176

WILLIAMS C. & SONS LTD.,
Victoria Wharf, 337 Lichfield Road, Birmingham, 6.
EAST 1191

WILLMENT BROS. LTD.,
462 London Road, Isleworth, Middx.
ISLEWORTH 4311

*IMPORTANT ANNOUNCEMENT

To overcome anomalies which arise when Standard Forms of Contract unrelated to Demolition projects are considered, the Federation has issued a form of Contract specifically drawn for Demolition work, likewise a schedule of day work charges. In addition the Working Rule Agreement with the N.F.B.T.O. has been reviewed and brought up to date. Copies of all documents are available on application to the Secretary.

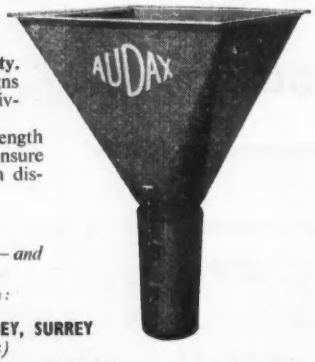
For further information apply: **THE SECRETARY,**

THE NATIONAL FEDERATION OF DEMOLITION CONTRACTORS

21 PRINCES STREET, HANOVER SQU ARE, LONDON, W.1. TELEPHONE: MAYFAIR 4768/9.

AUDAX

ELEPHANT HEADS and TRUNKING



ELEPHANT HEADS:
Standard Head 10 cu. ft. capacity. Made in various sizes and designs to suit capacity, position of receiving and discharge.
Hopper is transformed over length from square to round to ensure smooth flow of mix and at high discharging rate with no fouling.
Trunking to suit customers' requirements:
The finest on the market today — and the keenest prices in the field.
Full details from the actual Manufacturers:
AUDAX
CENTRAL AVENUE, WEST MOLESEY, SURREY
Telephone: Molesey 6071 (8 lines)

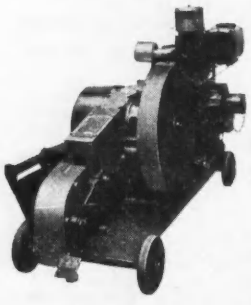
CONTRACTORS.
MINING.
CIVIL ENGINEERS.
INDUSTRIAL.

P.T.S

BRITISH ISLES COLLECTION and DELIVERY
FREE ESTIMATES.

AIR TOOL REPAIRS
COMPLETE RECONDITIONING & RE-MACHINING FACILITIES

PNEUMATIC TOOL SERVICE LTD.
GOGMORE LANE, CHERTSEY, SURREY
Tel. CHERTSEY 2574



"KINGSLAND" BAR CROPPERS
For Sale or Hire
Model D40 1½" capacity
Shears: 1½" Rounds
1½" Squares
2½" x 1" or 3" x ¾" Flats
2" x 2" x ¾" Angle
Capacity based on 28 ton tensile strength
Single or continuous mechanism
Cutting speed: 40 Strokes per minute
Weight: 11¼ cwt.

Purchase Prices: 5 h.p. Electric motor £395. Petter AVA 1 Diesel engine £545
Distributors and Stockists: **Delivery Ex-Stock — Dagenham Depot, Essex**
NEAGRON (CONSTRUCTION) LTD. ABBEY HOUSE VICTORIA ST., S.W.1
Telephone: Abbey 5152 (5 lines). Sullivan 7626 (5 lines)

CRANE HIRE
CAPACITIES TO 25 tons JIB LENGTHS TO 120 ft.
RECONDITIONERS OF TRACTOR RUNNING GEAR AND EARTHMOVING EQUIPMENT



WELDING by SUBMERGED ARC

H. SELLERS (LEEDS) LTD.
79 CLARENCE RD., LEEDS, 10. PHONE 34281

SCOTNEY MADE TIMBER BUILDINGS ARE BRITAIN'S BEST

Scotney made timber buildings are Britain's best in design, construction and appearance.

We at Scotney's do not look upon a timber building, whatever its requirement, as just another temporary affair to fill a gap before a permanent building is erected.

All our buildings are architect designed not only to fit in with local surroundings, but to be functional. Though we do supply many for temporary use, today you can see throughout the country many permanent Scotney buildings, for offices, shops, factories, schools, etc., that have been constructed by most up-to-date methods, incorporating the widest use of timber and other materials.

Scotney buildings can be erected quickly, saving much time and capital outlay.

You are invited to use the facilities offered by our special advisory department for imaginative timber construction in conjunction with modern materials.



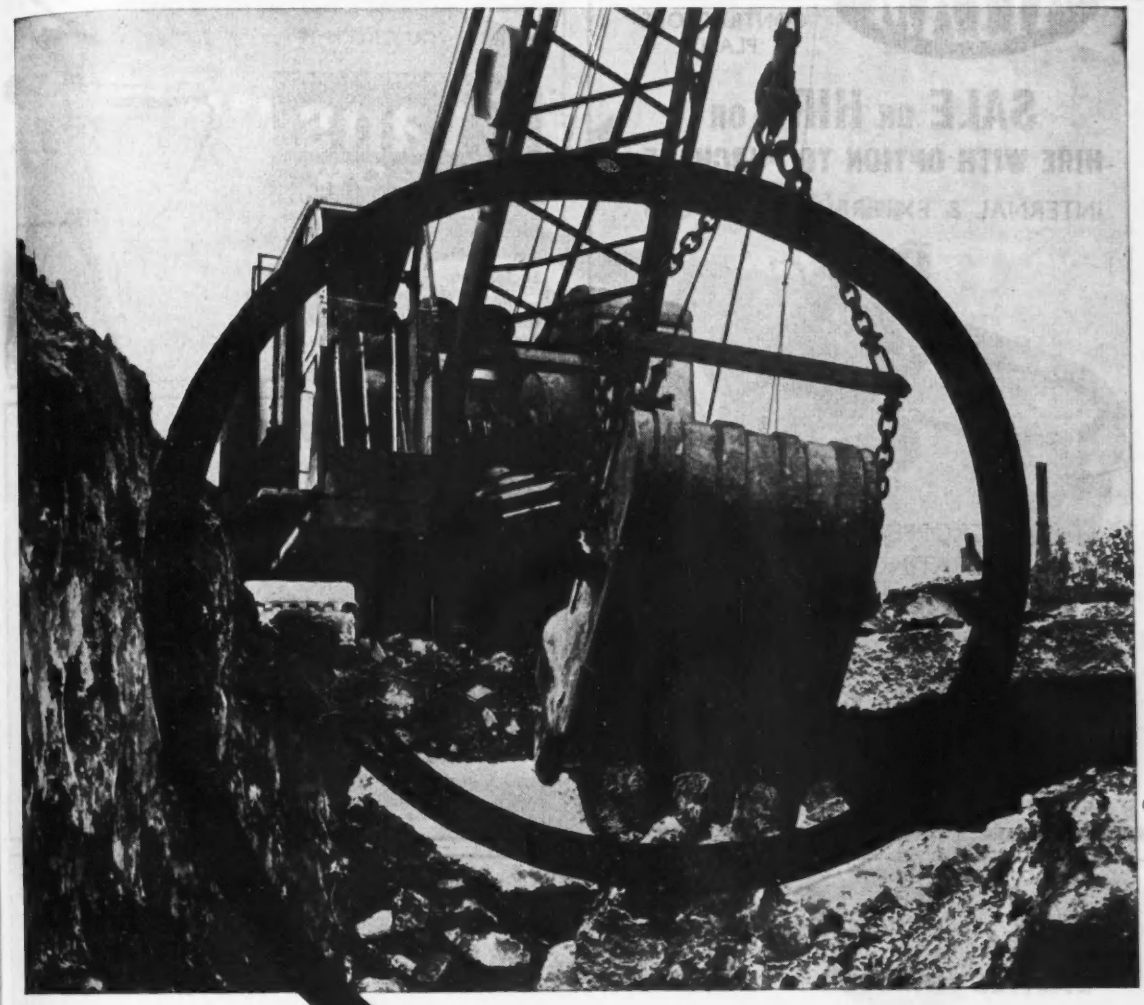
Office Block for Messrs. Fisons Pest Control Ltd.

TOM M. SCOTNEY LTD
BUILDING DIVISION, DESIGNERS, TIMBER ENGINEERS
Dept. 145, ST. IVES, HUNTS. Telephone 2421 (4 lines)



Hire them from

JOSEPH PUGSLEY AND SONS LTD *Lawrence Hill* **BRISTOL, 5**
TELEPHONE 56037 (4 Lines) · GRAMS, 'PISTON', BRISTOL·



This excavator was financed by ASTLEY *are yours . . . ?*

THE bigger the contract and the bigger the opportunity, the more it costs in plant, equipment and transport. And there comes a time when any Contractor has to stop for a minute and think about capital expenditure.

It is a problem about which he need not think single-handed. For fortunately, there are specialised financial organisations in whom he can safely confide.

One of the oldest and biggest of these is the Astley Industrial Trust, which for more than a quarter of a century has been serving the expanding needs of British Industry. (And particularly, of Contractors and Civil Engineers).

In that period, it has financed millions of pounds worth of plant for some of the biggest contracts in this country, in the Commonwealth, and elsewhere. It has built up an under-standing of Contractors' needs which you may find rather unusual in a Finance House, and, if you wish it, the staff of this Plant and Equipment Division are never afraid to get some mud on their boots by coming out to look at the problem on the site.

* * *

The Astley Group has been established since 1935. It has a self-contained Plant and Equipment Division, with specialised experience of Civil Engineering and Contractors' finance, It was one of the pioneers in introducing to this country the 'Leasing' system, which is an essential part of the industrial economics of the United States and Canada. It has total assets in excess of £30,000,000 and paid-up capital and reserves of approximately £6,000,000. It is associated with the leading clearing Banks, and was a founder-member of the Finance Houses Association.

AND IT REGARDS ONE OF ITS JOBS IN LIFE, AS HELPING THE WORTH-WHILE FIRMS IN CIVIL ENGINEERING AND CONTRACTING TO EXPAND FURTHER AND FASTER, WITH LESS WORRIES ABOUT CAPITAL EXPENDITURE.

ASTLEY / **ASTLEY INDUSTRIAL TRUST LIMITED**
ASTLEY LEASING COMPANY LIMITED
And Associated Companies

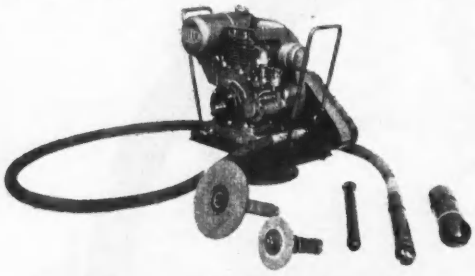
Head Office: Astley House, Quay St, Manchester 3 DEA 6831 / *London Office:* Astley House, 33 Notting Hill Gate, W11 BAY 2434
Member of Finance Houses Association **Group assets exceed £30,000,000**

ALLAM

CONTRACTORS PLANT

SALE OR HIRE OR
HIRE WITH OPTION TO PURCHASE

INTERNAL & EXTERNAL VIBRATORS



BAR CROPPERS & BENDERS
VIBRATING TAMPERS
COMPACTING MACHINES
GENERATING SETS
PUMPS

E. P. ALLAM & CO. LTD.
132/135 SLOANE STREET · LONDON, S.W.1
Tel: SLOane 9976

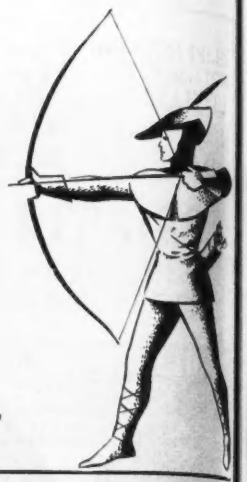
AGENTS THROUGHOUT U.K. AND EIRE

YOU'RE RIGHT ON THE MARK----
When you choose

Evans OF BOW

For all your needs in Scaffolding and Non-Mechanical Building Equipment.

C. EVANS & SONS LTD., BURNSIDE WHARF, BURNSIDE STREET, BOW, LONDON, E.3
Telephone: ADVance 5691/2/3



COUNTRY WIDE

CRANE HIRE SERVICE

5, 10, 15, 25 tons LORRY MOUNTED
Jibs to 150' 0"
NEAL-UNIT & NCK CRAWLER CRANES
Jibs to 95' 0"

STANLEY BUTTERWORTH LTD.
WINTERTON ROAD, SCUNTHORPE, LINCS.
Telephone: SCUNTHORPE 5474/5

MEMBERS OF THE LORRY MOUNTED CRANE ASSOCIATION

M. & J. Engineers Limited

"CASHEL HOUSE" · 15 THAYER STREET · LONDON, W.1.

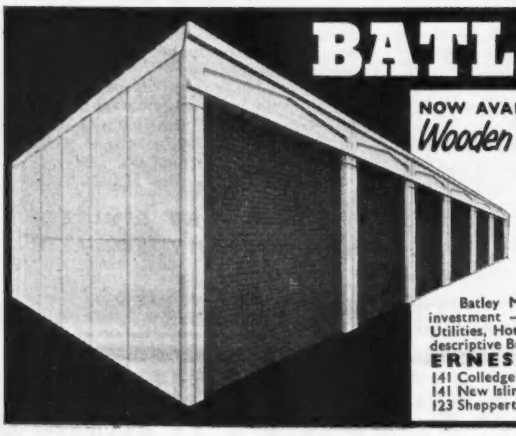
Contractors Plant for Hire

DOZERS SCRAPERS COMPRESSORS MIXERS J.C.B's.
EXCAVATORS PUMPS DUMPERS ROLLERS
VIBRATORS TRAFFIC LIGHTS HOISTS RAMMERS



Let us quote you for Earth Moving. Tel: London: WEL 0702. Depot: LUTON 1884

BATLEY MULTIPLE CONCRETE GARAGES



NOW AVAILABLE WITH
Wooden Roller Shutter Doors!

- Any number in one block.
- Free advisory service available.
- Hinged or 'Up & Over' Doors.
- Extensive free delivery area.
- Erection service available.
- Purchased by over 300 Councils.
- 3 years' Guarantee.
- Attractive Deferred Terms.

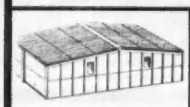
Batley Multiple garages provide an unequalled investment — ideal for Housing Estates, Public Utilities, Hotels, Private lock-ups, etc. Send for fully descriptive Brochure.

ERNEST BATLEY LIMITED
141 Colledge Road, Holbrooks, Coventry. Tel. 87253
141 New Islington, Manchester, 4. Collyhurst 2887
123 Shepperton Road, London, N.1. Canonbury 8793

MODELS FOR EVERY SITE



For sloping sites garages can be stepped



Back to back in one block



Roof slopes to front or rear



IBECO

WATERPROOF PAPER

IN CONCRETE ROAD CONSTRUCTION

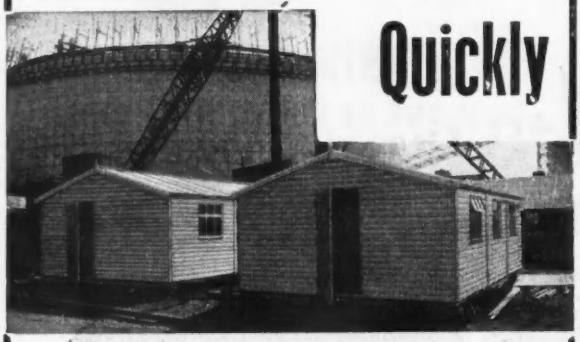
Recommended qualities for concrete work are IBECO No. 40 to BSS 1521/1949 Class B and IBECO No. 60, the choice depending on the stresses involved. The former fully meets the specification at the lowest possible cost. As well as preventing seepage from the mix IBECO also checks the upward penetration of harmful acids and other chemicals frequently occurring in subsoils. It also has useful applications as a curing overlay. There is no free bitumen in IBECO to sweat out under exposure to hot sun.
We will gladly send samples on request.

For the essential retention of water in a concrete mix to ensure sound setting and hardening, careful contractors are more and more depending on IBECO . . . Like no other waterproof paper, IBECO is waterproof *throughout its texture*. The proofing bitumen is part of the paper itself. Folding, creasing, even heavy trampling will not impair IBECO's impermeability . . . It's easy and quick to handle—speeds the work as well as lowering its cost and ensuring a better job. Remember IBECO for contracts in hand and in prospect.

DAVIDSONS PAPER SALES LTD.

LONDON: 82/84 St. John St. E.C.1. LIVERPOOL: 31 North John St. 2. LEEDS: 9 Albion St. NEWCASTLE: 42 Corporation St. GLASGOW: Laird Place, Bridgeton, SE. EDINBURGH: Boroughloch Square. DUNDEE: 24 Lamb's Lane. ABERDEEN: 4 Trinity Quay.
HEAD OFFICE: Mugiemoss Mills, Bucksburn, Aberdeen.

Site Huts Quickly



Photograph by courtesy of Alexander Finley & Co. Ltd., Motherwell.

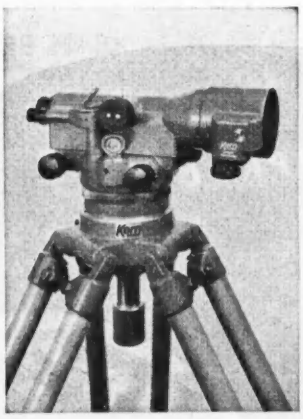
We can quickly supply Redwood Weatherboard Site Huts in standard sizes, or to your own specification, as already used by many leading contractors.

FREE DELIVERY ENGLAND & WALES

L. & D. ABLESON LTD

SHEEPSCAR CORNER, LEEDS 7

Tel: 31509 & 25637



GK-23

NEW KERN PRECISION ENGINEER'S LEVEL

This **NEW KERN** Level has a telescope magnification of x30 with coarse and fine focusing, and will resolve .01ft. at 900ft.

This **NEW KERN** Level has an internal coincidence reading bubble, read inside the main telescope, and is capable of levelling to an accuracy of $\frac{1}{8}$" in 2 miles.

This **NEW KERN** Level is compact and light in weight and though the quality is unsurpassable, the price is economical.

This **NEW KERN** Level is available from:

SURVEY & GENERAL INSTRUMENT CO. LTD.

329 HIGH HOLBORN, LONDON, W.C.1.

Telephone: HOLborn 4118 (4 lines)

N. West Agent

CHADBURNS (Liverpool) LTD., 31 Brunswick St, Liverpool 2



Clean plant is good plant

Well maintained plant lasts twice as long—or more. Contractors and plant hire companies are finding that the best way to keep plant in good condition is by letting Flextol equipment do the donkey work.

A Flextol motor and shaft drive, using the various handpieces and tools available, will remove rust, scale, concrete and other deposits from valuable plant and will make maintenance an easy and speedy job.

Accessories cover the operations of scaling, wire brushing, disc sanding, roller sanding, grinding and many other essential jobs.

Equipment is also available for tube cleaning.

May we send you full particulars

or arrange a demonstration?

Flextol POWER TOOLS

Flextol Machines and Accessories are also available on hire from our associate company, Flextol (Plant Hire) Limited

FLEXTOL ENGINEERING COMPANY LIMITED, The Green, Ealing, London, W.5

Telephone: Ealing 6444/7 Telegrams: Dominating, Ealux, London

AP123

Money Making CAT RUBBER TYRED Traxcavators



LEVERTON

YOUR CATERPILLAR DEALER

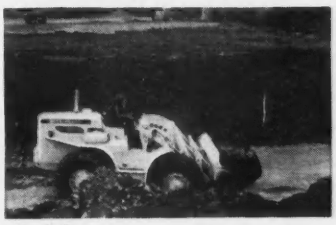
PROGRESSIVE CONTRACTORS BUY CATERPILLAR TRAXCAVATORS WITH LEVERTON SERVICE



2 J. Williams Ltd. Chorley

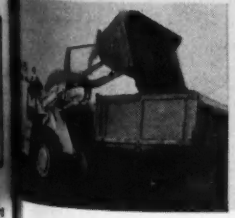


966 J. W. Thompson & Sons Ltd. Doncaster



944 Higgs & Hill Ltd. London

4 J. & G. T. Gordon Ltd. Choppington



922 E. Lawson Ltd. Darlington



966 B. Crouch (Contractors) Ltd., Peterborough



922 H. Hodgon, Sheffield



LEEDS, Gildersome, Leeds. Tel: Morley 4221. **WINDSOR,** Maidenhead Rd., Windsor. Tel: Windsor 1913. **NEWCASTLE,** Team Valley Trading Estate, Gateshead. Tel: Low Fell 78511. **SPALDING,** Spalding, Lincs. Tel: Spalding 3221. **WIGAN,** Wigan Rd., Bryn, Ashton-in-Makerfield. Tel: Ashton-in-Makerfield 7675. **ASHFORD,** Chart Road, Ashford, Kent. Tel: Ashford 1771. **ROTHERHAM,** Meadow Bank Rd., Rotherham, Tel: Rotherham, 78259. **BRENTWOOD,** Southend Arterial Rd., Brentwood. Tel: Herongate 251.

Caterpillar, Cat and Traxcavator are Registered Trademarks of Caterpillar Tractor Co.

The NEW INTERNATIONAL B-8K 3

DROTT SKID SHOVEL

takes a really hefty bite!



CRIPPS

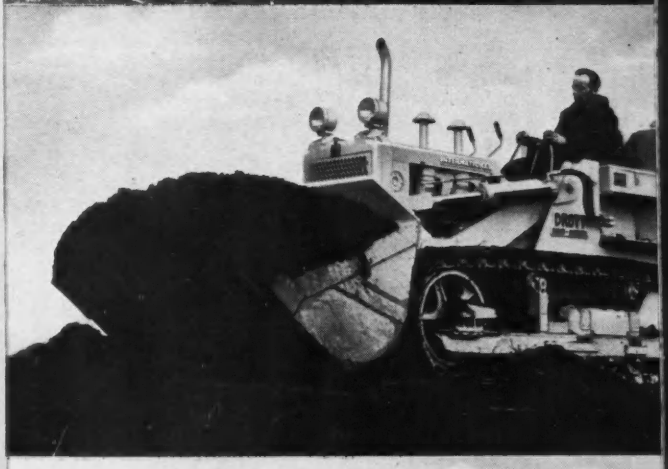
for the finest on tyres and tracks!

Extra...

★ BUCKET CAPACITY
★ POWER
★ WEIGHT
★ SPEED
★ DISCHARGE HEIGHT
★ REACH









The B-8K3, which has a 1¼ cu. yd. heavy-duty bucket, is powered by the entirely new International BD-281 four cylinder diesel engine developing 60 b.h.p.

It is a ton heavier than its younger brother, the renowned B-6K3, and has a clear discharge height of 8' 0" under the fully dumped bucket, with a reach of 28".

A striking feature of this machine is its modern styling with exceptional operator comfort. But of more importance are the technical features which include one-piece shovel frame construction of great strength, and a mounting system hitherto only used on larger Drott models.

All these features add up to make the B-8K3 the answer for those jobs which require that extra power...weight...and speed. Please write now for a descriptive leaflet giving full specifications.

INTERNATIONAL HARVESTER

R. CRIPPS & COMPANY LIMITED

NOTTINGHAM, Tel. 71161.

MANCHESTER, Tel. Trafford Park 1658.

SHILDON, (Co. Durham) Tel. 261.

VICKERS-DETROIT HYDRAULICS

FOR FARM MACHINERY

VICKERS hydraulics are chosen by the designers of a great many types of specialised machines and for a wide range of mobile equipment. They are chosen because VICKERS offer the world's most reliable equipment; the world's widest selection of components; full technical collaboration, including a circuit design service; and, if required, installation and maintenance training for your personnel at the Hydraulics Schools.

The illustration shows the versatile McConnel Power-Arm attachment with which almost any agricultural tractor can be adapted quickly for hedging, ditching, mowing and many other duties.

A VICKERS Control Valve forms a part of this Power-Arm Ditcher equipment and operates in conjunction with the tractor hydraulic circuit.



VICKERS SPERRY RAND LIMITED

(formerly Stein Atkinson Vickers Hydraulics Ltd.)

Division of Vickers Incorporated, U.S.A.

New Lane, Havant, Hampshire. Telephone: Havant 2281

MANUFACTURERS IN BRITAIN OF VICKERS-DETROIT HYDRAULICS

Technical Sales and Service at London, Glasgow, Birmingham, Leeds and Manchester

SAS 46/1



what do you *really want* in a Truckmixer?

You want a steady controlled flow of consistent concrete—pavement quality, lean-mix or sticky, according to the job. Performance that is as consistent as the concrete mix. A truckmixer that is cheap to run and gives continuous reliability. Then choose the 'Varispeed'—it will give you the lot!

Look at all these special features . . . large drum entry with "shrink" blade and variable drum speeds, giving a rapid charge-mix-discharge cycle whatever the type of mix . . . flow meter water control with front and rear entry . . . lightweight hydrostatic drive with single lever control . . . compact design, with low centre of gravity, for mounting on to short wheelbase chassis . . . maximum standardization of parts in 4/4½ and 6/6½ cu. yd. units for economical fleet maintenance. It's clear that what you *really want* is the 'Varispeed'—the truckmixer that gives you the edge you need.

BLAW KNOX

BLAW KNOX LIMITED *Short's Way, Rochester, Kent. Chatham 41041*

BRISTOL DIESEL CRAWLER TRACTORS



BRISTOL–TERRIER COMBINATION
Digs to 12 ft. x 3 ft.
Full range of Excavating,
Clay and Face Shovel Buckets.

SALES AND SERVICE ORGANISATION

BIRTLEY, CO. DURHAM	H. N. Marsh & Co. Ltd.	**RADLETT (HERTS)**	H. A. Saunders Ltd.
MANCHESTER	C & A Plant Services Ltd.	**CREDITON (DEVON)**	H. A. Saunders Ltd.
KEIGHLEY	E. Foulds (Motor Engineers) Ltd.	**BELFAST**	McNeill (Engineering) L
WORCESTER	H. A. Saunders Ltd.	**DUBLIN**	McNeill (Ireland) Ltd.

GLASGOW Thomas Cochran Co. Ltd.

BRISTOL PD48 EUROPA

Excavator, Forward Loader and Overloader.

32 B.H.P. 4½ TONS OF VERSATILITY



H. A. SAUNDERS LIMITED

INDUSTRIAL TRACTOR DIVISION

836-842 HIGH ROAD, NORTH FINCHLEY, LONDON N.12

TEL: HILLSIDE 8822 (15 LINES) Grams: Dutrax, London N.12

MECHQUIP

FOR SPECIALISED TRUCK MOUNTED CRANE HIRE IN ALL MIDLAND AREAS

RING

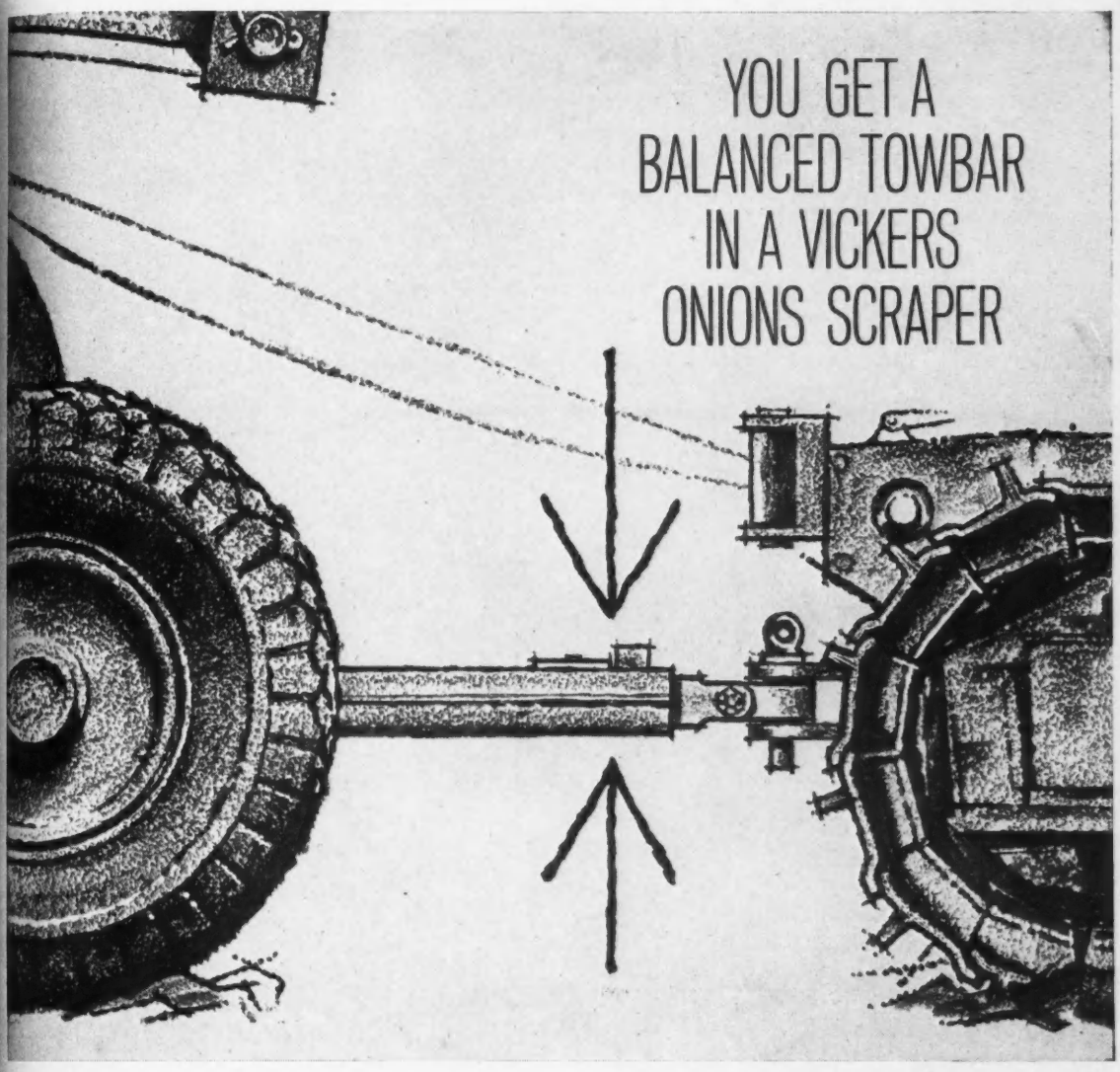
DUNCHURCH 543

CAPACITIES AVAILABLE FROM 3-25 TONS

BOOM LENGTHS UP TO 120 FEET PLUS FLY

DIFFICULT JOBS WILL BE VIEWED WITHOUT COST BY APPOINTMENT.

MEMBERS OF L.M.C.A.



This means the minimum weight is transferred to the hauling tractor



Vickers Onions model 4-6 Scraper. Note the horizontal line of the drawbar continues through the hitchblock showing minimum downward load. The Cable Control Unit is a Vickers Onions model 12, one of the range of Cable Control Units specially designed to match up with your tractor.

This allows peak performance from the tractor at all times, better output and profits.

Other built-in Vickers Onions plus points include:—

- Low Bowl design with wide track provides stability, enables you to use the increased speed of modern crawlers;
- Positive action, central thrust tailgate gives easily controlled ejection;
- Large tyres reduce rolling resistance, minimise risks of bruising or concussion fractures;
- Wide cutting edge relative to overall scraper width improves bank cutting, enables you to operate closer to the vertical wall.

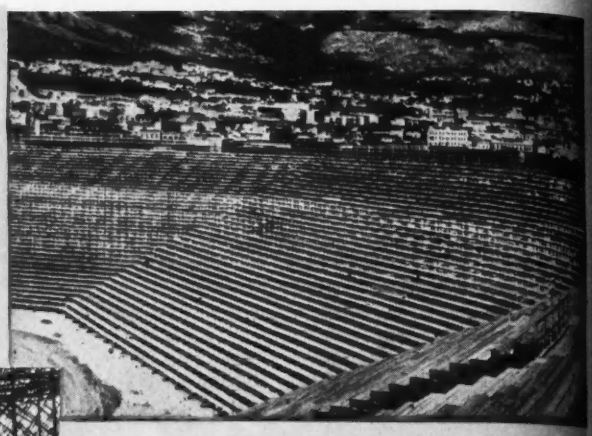
Remember—the Vickers Onions Scraper Range is the largest in the world and includes a Scraper to match most crawler tractors.

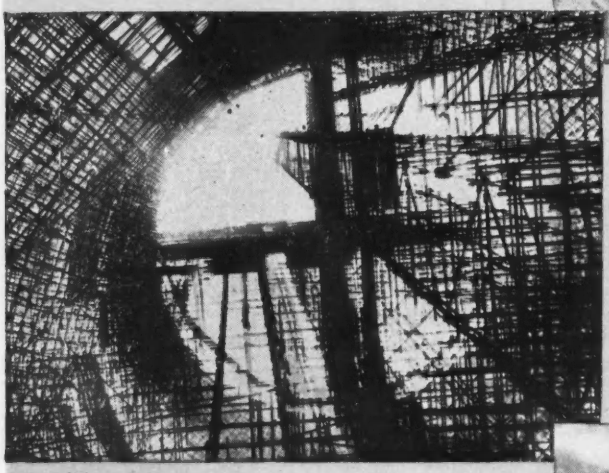
VICKERS

VICKERS-ARMSTRONGS (ONIONS) LIMITED
Onions Works Bilston, Staffs. Tel: Bilston 41751/5

Dealers in Great Britain: Jack Olding & Co. Hatfield, Herts.

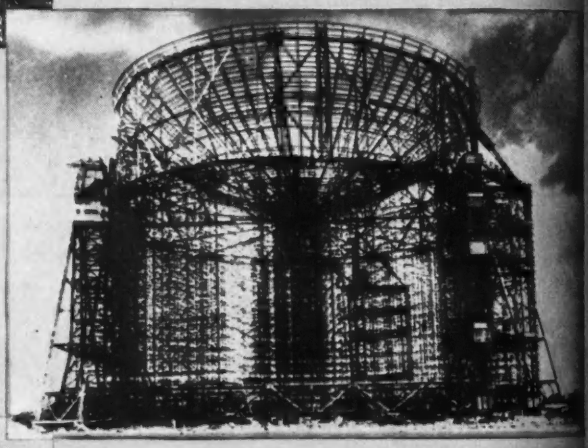
There's no limit

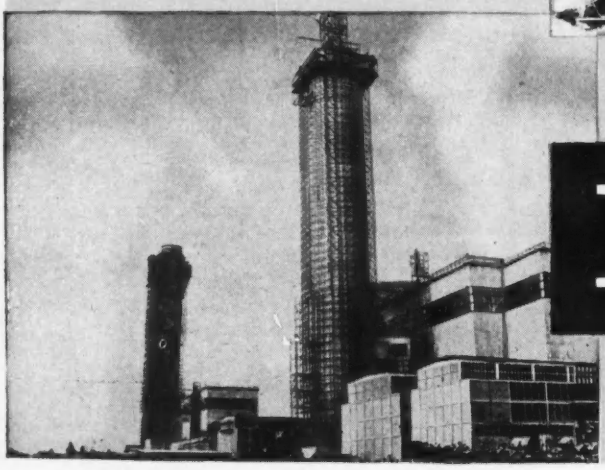




to the support

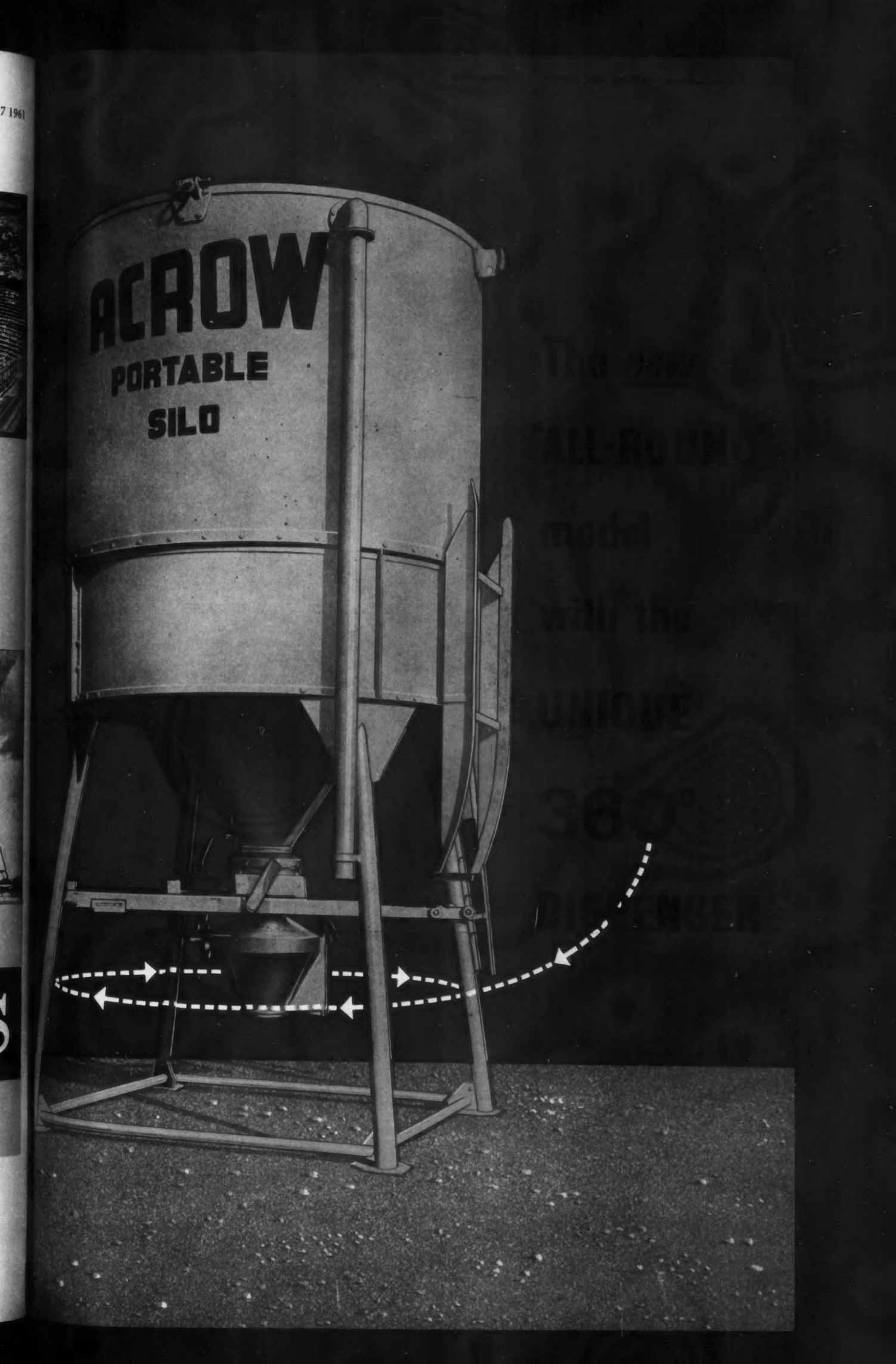
you can get from





MILLS

MILLS SCAFFOLD CO. LTD., *A subsidiary of Guest, Keen & Nettlefolds, Ltd.*, Head Office: Trussley Works, Hammersmith Grove, London W.6. (RIVerside 3016)


ACROW
PORTABLE
SILO

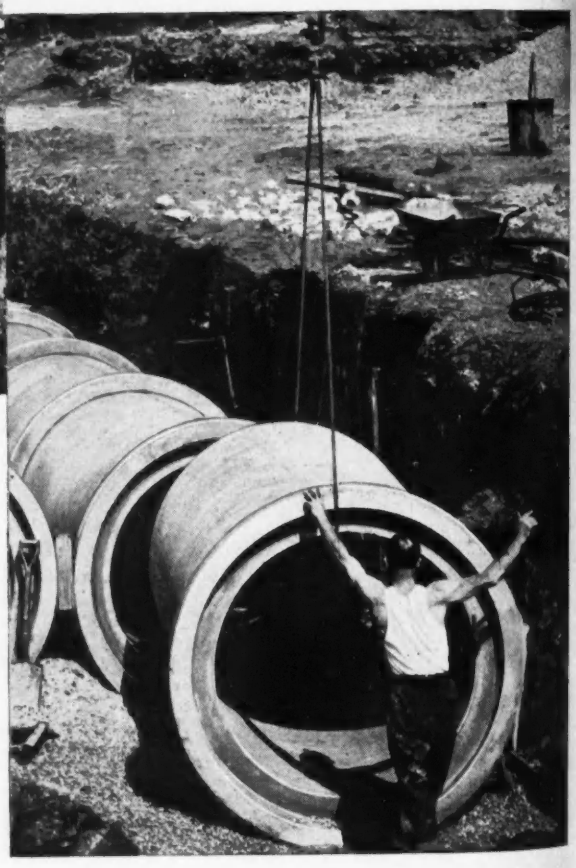
STANTON AND STAVELEY

SPUN CONCRETE PIPES



The photographs show 54″ diameter concrete pipes designed for laying at greater depths and without the use of in situ concrete support.

Supplied to the Worthing Corporation for the East Worthing Sewage Works Extension Scheme.



Engineer and Surveyor: G. H. Kempton, Esq., A.M.I.C.E., M.I.M.E., F.R.I.C.S., Worthing.

Contractors: J. T. Mackley & Co. Ltd., Shoreham-by-Sea.

For further information telephone: Ilkeston 2121 Extension 250

STANTON AND STAVELEY SALES LIMITED NEAR NOTTINGHAM



Kenwood choose Austin prime movers

At agricultural and other showgrounds the Kenwood demonstration van is a familiar sight. To move this huge trailer around Britain and the whole of Ireland – and soon too on the continent – Kenwood have chosen an Austin prime mover. The latest addition to the 150, all-Austin, fleet of this well-known domestic appliances firm. Reasons for their choice in prime movers?

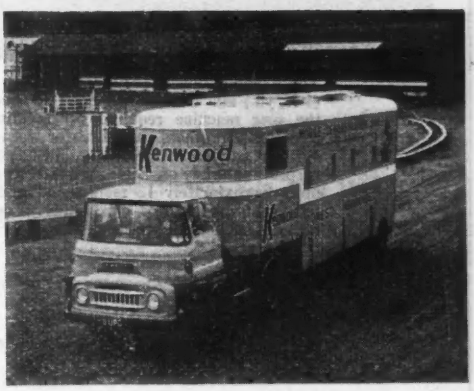
Shift-power. Tough adaptable Austin prime movers offer a choice of 4 litre petrol engine (90 b.h.p. at 3,000 r.p.m.) or 5.1 litre B.M.C. diesel (105 b.h.p. at 2,600 r.p.m.). Both 6 cylinder O.H.V., both with lively high-power performance.

Adaptability. Rear end of the chassis frame is left open so that a suitable cross member can be fitted to take any approved coupling gear. The rigid steel chassis frame, with robust but flexible suspension, gives complete stability.

Driver-comfort cab. The welded steel safety cab is dust and draught sealed, with wraparound windscreen for uninterrupted vision. Fully adjustable driving seat, relaxed driving position and easy manoeuvrability give maximum driver comfort.

Train weight choice. Austin prime movers, with normal or forward control, offer a choice of single speed rear axle for up to 12 tons gross train weight, or two-speed axles for 15 tons. 3 tyre sizes also available. **From £837.**

And a newcomer for 18 ton gross train weight. With 5.7 litre 6 cylinder diesel engine. 5 speed constant mesh gearbox. Eaton 2-speed rear axle. High efficiency heavy duty steering. Servo-assisted brakes. Forward control only, £1,465.



AUSTIN—BRITAIN'S WIDEST COMMERCIAL RANGE

¼–1½ ton vans, 30 cwt.–7 ton trucks, 5 and 7 ton tippers, go-anywhere Austin Gipsy. Every vehicle with 12 months warranty, backing of B.M.C. Service.

B.M.C. Drivers' Club offers free personal benefits for drivers. Ask us for details.

BIG MEN INVEST IN

AUSTIN

THE AUSTIN MOTOR COMPANY LIMITED
LONGBRIDGE · BIRMINGHAM

Overseas Business:
Austin Motor Export Corporation Limited,
Birmingham, England

London Showroom:
41-46 Piccadilly, London, W.1.

MOBILE HAULAGE LTD

230 Tottenham Court Road
London W.1.
Telephone
LANGHAM 7833/4/5

Offer

FOR SALE

THE SECOND-HAND PLANT DESCRIBED BELOW HAS BEEN MAINTAINED FOR CONSTANT TROUBLE FREE OPERATION AT THE HIGHEST LEVEL. IN PRACTICALLY EVERY CASE THE MACHINES HAVE BEEN OWNED BY THIS COMPANY SINCE NEW. WE HAVE THE TITLE AND THERE ARE NO FINANCIAL LIABILITIES. PLANT IS EITHER OPERATING OR STANDING IN LONDON OR ESSEX.

J. DEERE 831 LOADER AND 51 BACKHOE

£2,500 This combination of Tracked Tractor Shovel (1 cu. yd.) and Excavator (up to 36" bucket) is the *one* machine required for building jobs. Replaces two others. A 'must' for wet weather. Will cut out roads, spread topsoil, trench, load surplus materials off Site. We have two available approximately 12 months old maintained by Agents and in first class order. Equipment includes buckets etc. from:

J. DEERE 831

Loader only 1 cu. yd. Tractor Shovel in first class condition: **£1,500**

CATERPILLAR HT4

£1,750 Specially prepared as a Site clearance Tractor. Heavy duty cab for driver protection. Hyster logging winch. Track parts 25% worn ready for a season's work:

CATERPILLAR 955—1½ cu. yd.

This well known and tried machine maintained in first class condition by this Company. Track parts 30% worn: **£3,250**

PILING



BEARING PILES

CONCRETE
•
STEEL
•
TIMBER

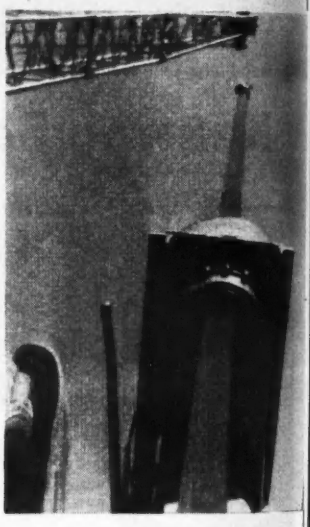
VERTICAL OR RAKED

BORED PILING

UP TO

30" DIA. x

70' DEEP



SPECIALIST EQUIPMENT FOR ALL SIZES ON CONTRACT

QUOTATIONS BY RETURN OF POST

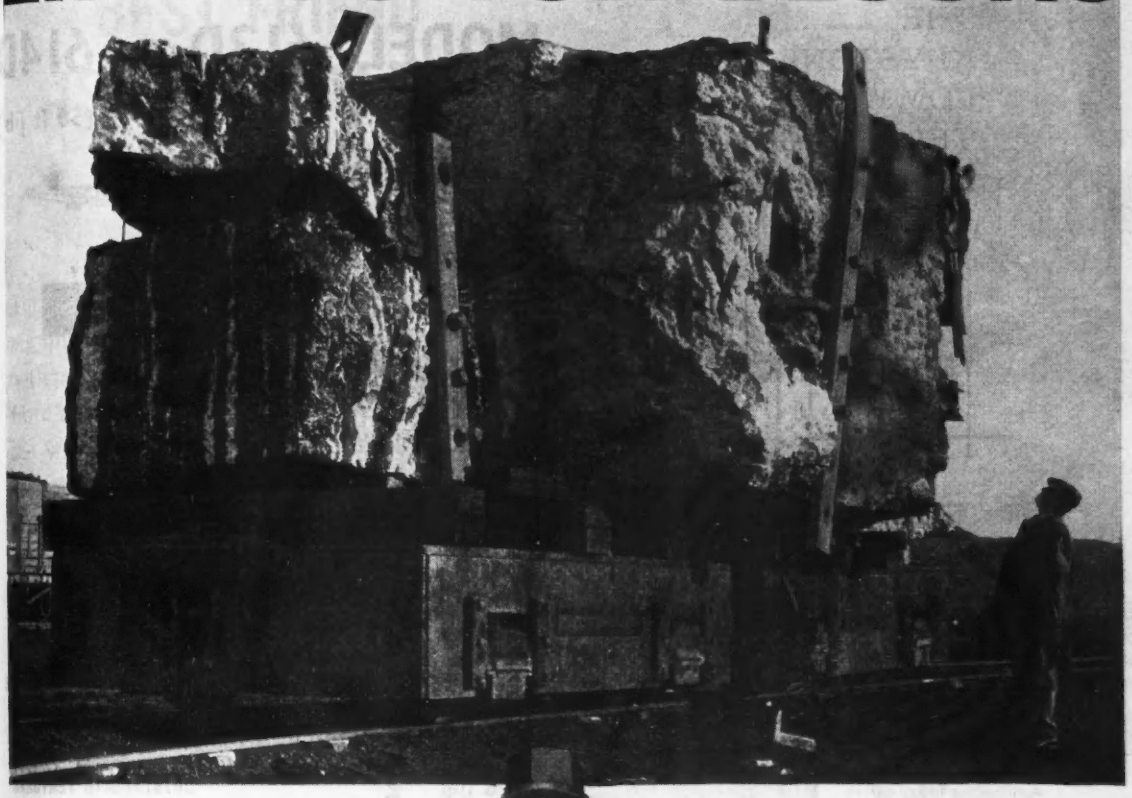
W. A. DAWSON

LTD.

SUNDON PARK, LUTON

LUTON 52203

RAWLBOLTS LIFT 100 TON BLOCKS



From Corby comes yet another impressive demonstration of the tremendous grip of Rawlbolts. Here, old concrete foundations had to be cleared for the installation of a new steel mill. They were burst with hydraulic cartridges, then trenched and drilled for 1⅝" diameter bolts, reduced and screwed to take K.20 Rawlbolt Shields. By this means removal was carried out in record time.

We are indebted to Stewarts & Lloyds, Ltd., of Corby, Northants, for the above information and permission to use their photograph.

FIXED IN MINUTES

Rawlbolts grip by *expansion*. You drill the material, insert the Rawlbolt, tighten up. The job is ready to take its full load *at once*—no grouting in, no waiting for cement to harden. A Rawlbolt fixing is made in a fraction of the time taken by any other method. Sizes and types for every purpose.

Write now for free technical literature for your reference files

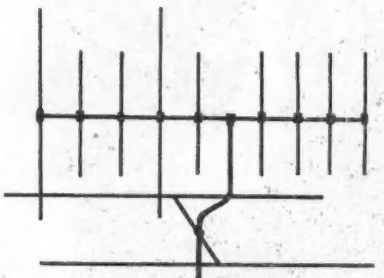
RAWLBOLTS

FOR SPEED AND STRENGTH

THE RAWLPLUG CO. LTD · CROMWELL ROAD · LONDON · SW7

BELCHER
(RADIO SERVICES) LIMITED

THE KEYSTONE OF COMMUNAL TELEVISION INSTALLATIONS



The success of any operation is in the unbiased use of specialist knowledge and equipment, that's why so many Architects and Local Authorities today call in Belcher's at the planning stage to advise on communal TV needs.

Belcher's planning ensures perfect TV reception for all, from just one carefully sited aerial.

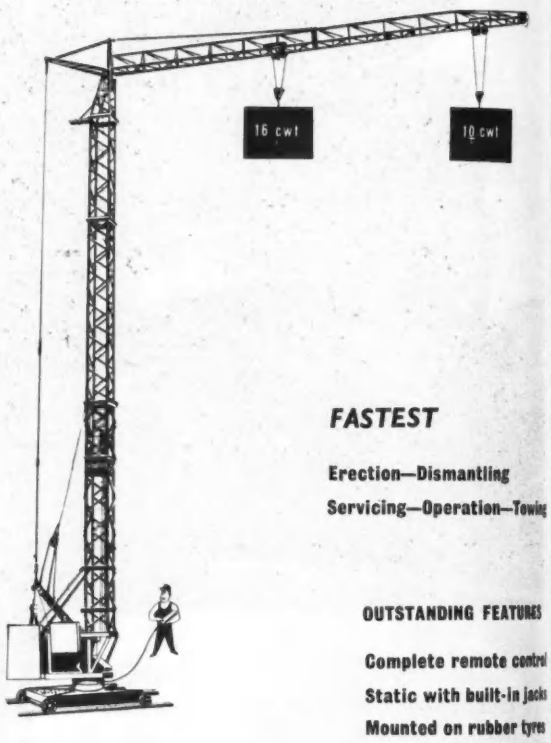
Contact your nearest Branch Manager for further details.

BELCHER
(RADIO SERVICES) LIMITED

Head Office: **59 Windsor Road, Slough, Bucks.**
Telephone: **Slough 24501**

Branches (35 mile radius)
Bath 2641
Bedford 68791
Bolton 21724
Derby 40537
Edinburgh WAV 6373
Exeter 66141
Hornchurch 49138
Leicester Oadby 3368-9
Lewes 3241
Lincoln 20403
Maidstone 86187
Norwich 45327
Perivale Alperton 1731
Reading 55367
Southampton 73034
Stockton-on-Tees 68576
Stoke-on-Trent 88617
Worcester 26373
York 25242

THE TELESCOPIC
CHAMPIONS
MODEL 613D – 614D
(40 ft jib) (50 ft jib)



FASTEST
Erection—Dismantling
Servicing—Operation—Towing

OUTSTANDING FEATURES
Complete remote control
Static with built-in jacks
Mounted on rubber tyres
Two speed hoist
Can be used on rails

CORNELLY EQUIPMENT COMPANY LIMITED

39 Victoria Street London SW1
Telephone ABBey 5702/3 (PBX)
Grams Cornelly Sowest London

MAIN AGENTS ENGLAND & WALES
TOWER CRANE SERVICES LTD
Benhams House Benhams Row Horley Surrey Horley 1147

MAIN AGENTS SCOTLAND
J A STEWART (PLANT) LTD
Townmill Road Glasgow Bridgeton 4441 Telex 77278

A SALES MANAGER'S BEST FRIEND IS A FORD ENGINE



There are so many more strong selling arguments for equipment that is powered with a Ford Industrial engine! There is Ford's unchallengeable position as one of the world's most experienced builders of Diesel and Petrol engines. There is Ford's unrivalled reputation for economy, long life and reliability. Best of all, there is the incomparable Ford Service organisation—a world-wide chain of factory-trained engineers backed by stocks of genuine Ford parts.

Within the range of 15 b.h.p to 100 b.h.p there is a Ford Industrial engine, Diesel or Petrol, 4-cylinder or 6-cylinder, to power any piece of Industrial equipment. Send the coupon below for full technical specifications.

FORD

SPELLS POWER

Please send me full details and dimensions of Ford Industrial engines.

Power range required ..... Diesel/Petrol .....

YOUR FIRM'S NAME .....

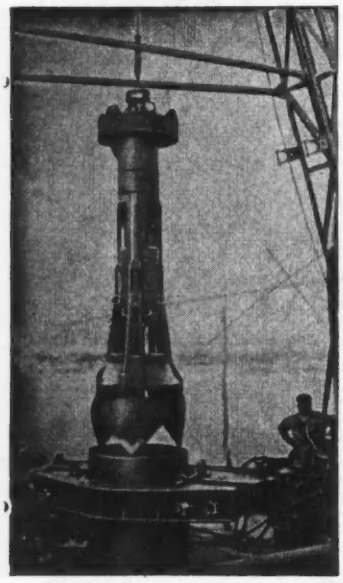
For the attention of Mr. .....

ADDRESS .....

.....

TO: **FORD INDUSTRIAL ENGINE DIVISION** · DEPT. G5b/SM1 · SOUTH OCKENDON · ROMFORD · ESSEX · ENGLAND

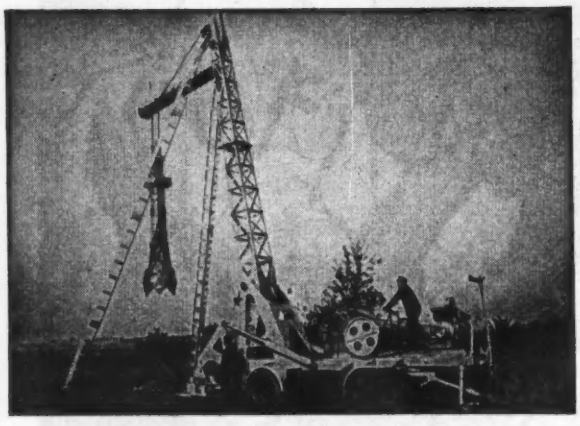
FOR BETTER RESULTS AND EFFICIENCY



USE

BADE Single Rope Hammer Grabs

Model	Cutting dia. of crown	Max. Boring dia. approx.	Number of blades	Dia of guide ring	Weight of Grabs approx.	Weight Hooking crown	Min. dia. of tubes O.D. inch	Min. dia. of tubes I.D. inch
E-32-2	14½"	17½"	3	-	1720lbs.	187lbs.	16½"	15⅝"
	16½"	20½"		-	1764lbs.		18½"	17½"
	20½"	25½"		18½"	1841lbs.		22½"	21½"
	24½"	29½"		21½"	1962lbs.		26"	24½"
E-43-2	28½"	33½"	3	24½"	2866lbs.	243lbs.	30½"	29½"
	38½"	43½"		32½"	3307lbs.		39½"	38½"
	47½"	59"		43½"	4410lbs.		50"	48"



MODEL HVM BG 15

Hydraulic Tube Sinking and Extracting Machine incorporating E-32-2 Hammer Grab. Application: Bored Piles, Well Drilling.

Please ask for detailed information

C.E.T. (EQUIPMENT) LIMITED

BURLINGTON WORKS, ABBEY ROAD, PARK ROYAL, LONDON, N.W.10
Tel.: ELGAR 6777 (4 lines)

STEEL

Corrugated Sheets, Plates, Angles, Tees, Channels, R.S. Joists, Reinforcing rounds for immediate delivery. Profile Cutting to customer's requirements

COX AND DANKS LIMITED

BIRMINGHAM
Scapa Works
Langley Green
Oldbury, Birmingham
Tel: Broadwell 1611
Telex 33183

MANCHESTER
Frederick Road
Pendleton
Salford 6
Tel: Pendleton 2481
Telex 66448

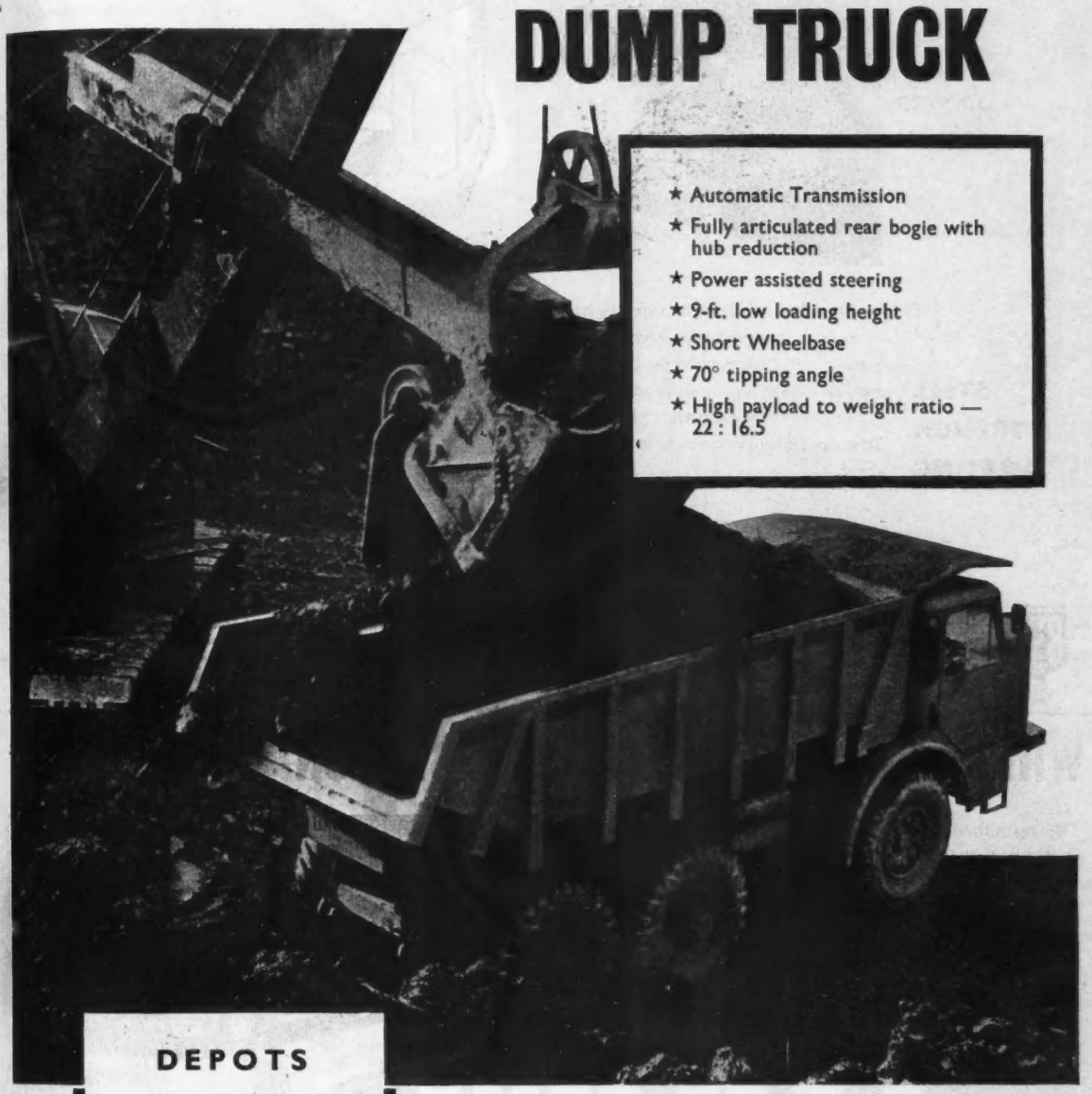
SHEFFIELD
Scapa Works
Wadsley Bridge
Sheffield, 6
Tel: Sheffield 344391
Telex 54205

LONDON
Scapa House
Park Royal Road
London N.W.10
Tel: Elgar 5811
Telex 25239

And at Newcastle, Bedford, Cardiff, Bow, Coventry and Belfast

A METAL INDUSTRIES GROUP COMPANY

The DOUGLAS AUTOMASTER 22 DUMP TRUCK



- ★ Automatic Transmission
- ★ Fully articulated rear bogie with hub reduction
- ★ Power assisted steering
- ★ 9-ft. low loading height
- ★ Short Wheelbase
- ★ 70° tipping angle
- ★ High payload to weight ratio — 22 : 16.5

DEPOTS

SHEFFIELD
Phone: 26311

GRAYS
Phone: Grays Thurrock 4764, 4806

GLASGOW
Phone: Scotstoun 6355/7

COVENTRY
Phone: Bedworth 2441/2

BRITON FERRY
Phone: Briton Ferry 3166

The 22-ton capacity DOUGLAS AUTOMASTER being loaded by a 6-yd. excavator

A new booklet: 'THE DOUGLAS AUTOMASTER 22' is available free on request

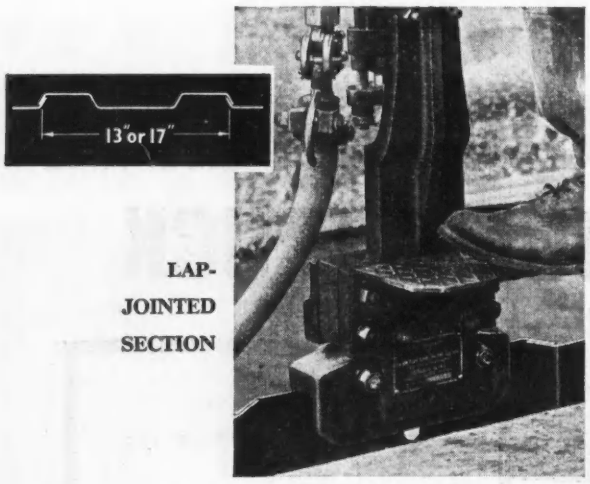
THOS. W. WARD LTD

ALBION WORKS • SHEFFIELD

TELEPHONE: 26311 • TELEX: 54-119

LONDON OFFICE: BRETTENHAM HOUSE • LANCASTER PLACE • STRAND • W.C.2. Telephone: Temple Bar 1515

CP 107



LAP-JOINTED SECTION

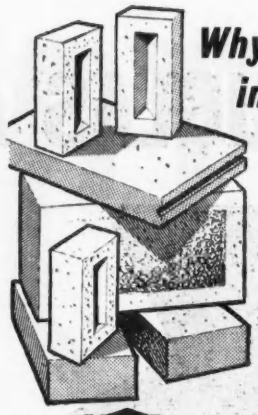
STEEL TRENCH SHEETING

Steel trench sheeting can be driven by hand or with a compressed-air-operated jack hammer. Far more rapid progress, however, and lower driving costs are obtained by using one of the lightweight McKiernan-Terry double-acting hammers, as illustrated above.

For full details of Sections T2 and T3 and of the hinge-jointed section L8, please write for List No. 212.

TECHNICAL REPRESENTATIVES THROUGHOUT THE WORLD
THE BRITISH STEEL PILING CO. LTD.
10 HAYMARKET, LONDON, S.W.1 Telephone TRAfalgar 1024

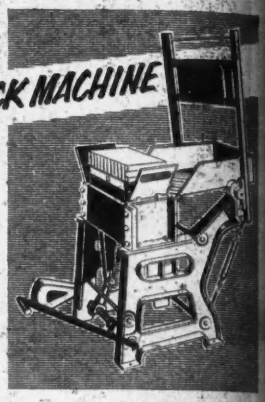
BSP 193



Why 'mark time' in standing time?

Nothing upsets a builder's economy more than having to put men on unproductive chores in standing time. What a great opportunity to make your own concrete slabs and bricks for future jobs, and what a great little machine LINER make to do just that!

The LINER SLAB, BLOCK & BRICK MACHINE



Makes Plain Slabs, Grooved or Tongued and Grooved Slabs, Frogged or Plain Bricks, Rock Faced and other Building Blocks. Hand tamping unnecessary. Fast in operation. Needs only wood pallets. Write for Brochure.

H.P. TERMS.. ONLY 10% DEPOSIT

THE LINER CONCRETE MACHINERY CO. LTD.
187, Park Road, GATESHEAD, 8.
Phone: 72501 (7 lines)
Grams: "Liner, Gateshead"

London Office: 2 Lexden Road, Acton, W. 3. Telephone: ACOrn 0931

Also at
Birmingham, Manchester, Liverpool, Bristol, Leeds, Grantham, Accrington, Torquay, Glasgow, Dundee, Belfast, etc.

LINER

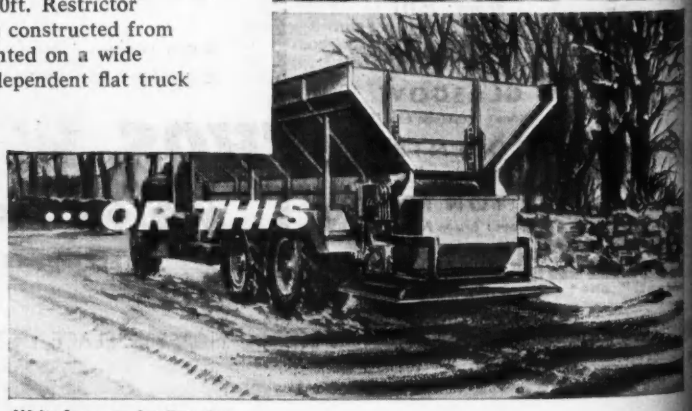
WHICH DO YOU PREFER TO SEE ON YOUR ROADS

Old-fashioned, crawling-lorry-and-shovel method of road gritting just can't cope with the needs of modern traffic in Winter weather—**Atkinson's Gritters are essential.**

Put it to your Finance Committee. Tell them how Atkinson's Gritters give one-man operation plus fast, even spreading that cuts both man-hours—often paid at overtime rates—and materials used. Remember, **an Atkinson Gritter takes only a few minutes to make a mile of road safe!**



Bulk gritters 2-12 cu. yd. capacity. Front- or rear-mounted spinners—spreading width adjustable up to 40ft. Restrictor canopy protects traffic and pedestrians. Bodies constructed from heavy gauge steel or glass fibre. Can be mounted on a wide range of new or used chassis. Trailer and independent flat truck mounted models also available.



KEEP YOUR ROADS SAFE AND OPEN WITH . . .

Atkinson's GRITTERS

Write for more details today:
ATKINSON'S AGRICULTURAL APPLIANCES LTD.
Kendal St., Clitheroe, Lancs. Tel: Clitheroe 645-6-7 Grams: Spreaders, Clitheroe

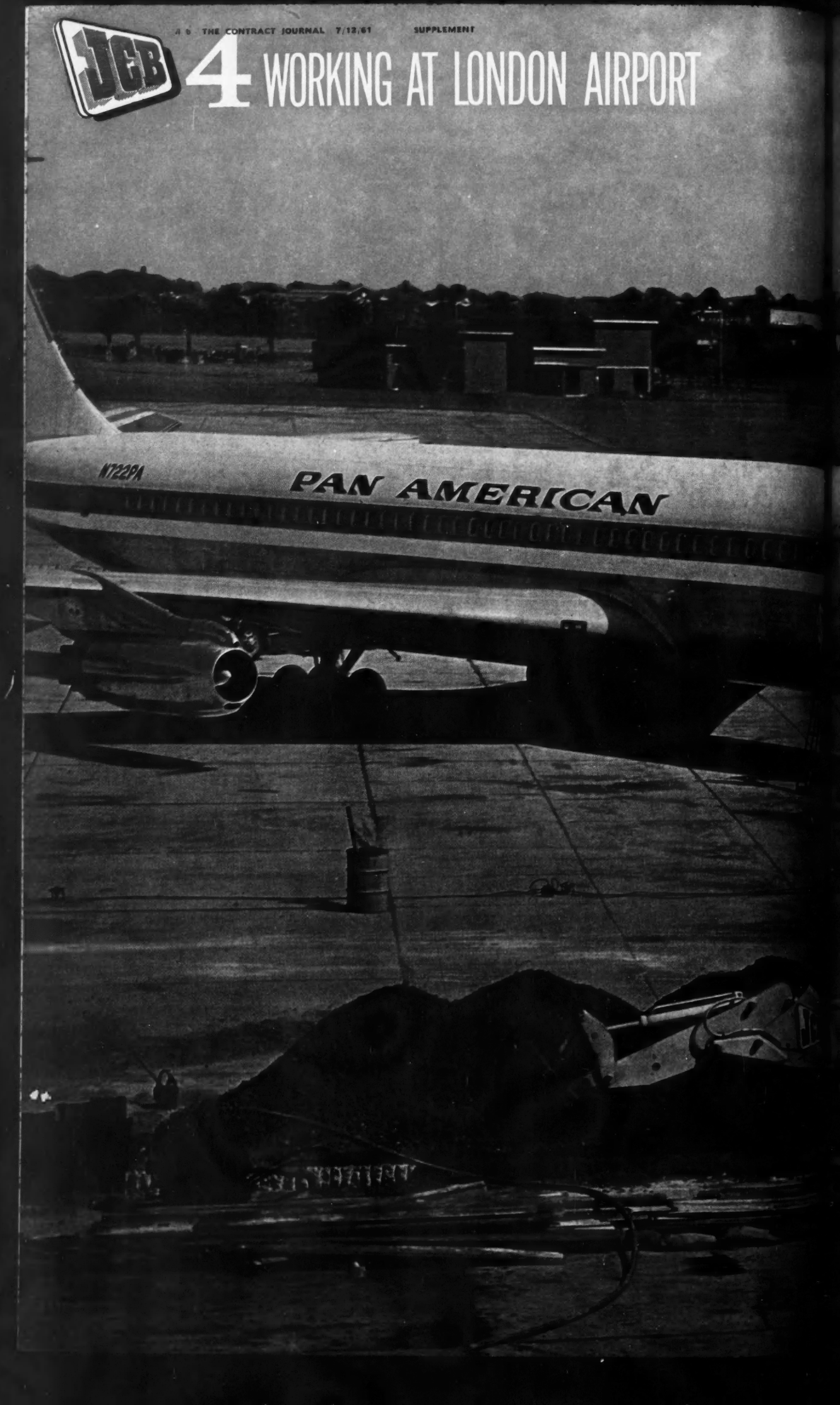
JCB

THE WORLD'S FOREMOST EXCAVATOR

8 92

JCB

4 WORKING AT LONDON AIRPORT





mission of Stanley Hugh Leach Ltd.

another

JCB

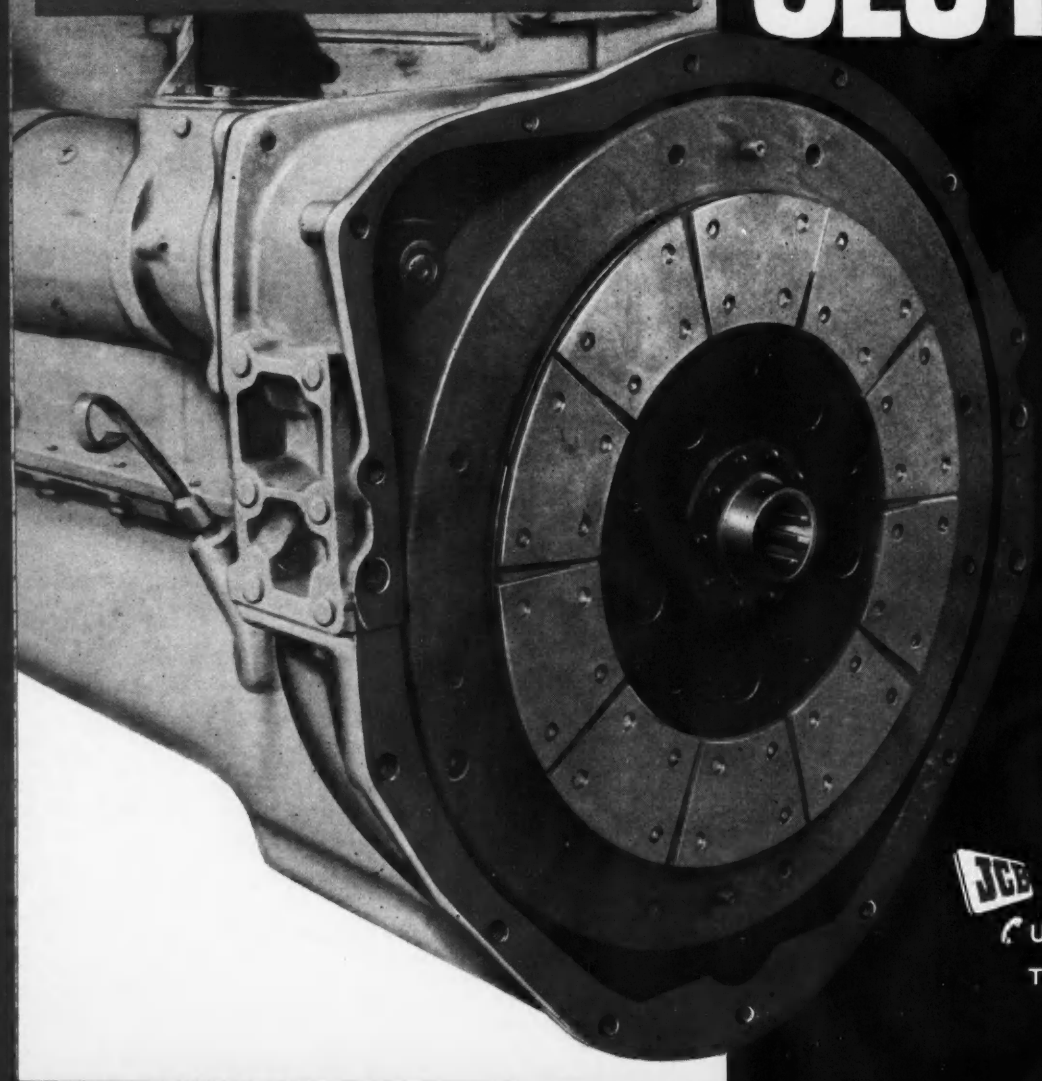
"QUALITY FIRST"

feature

Quality Components for a Quality Machine

It is a JCB policy to incorporate only the best materials in their equipment to provide a quality machine of maximum reliability.
Sintered bronze clutch facings have a consistent operating characteristic over a wide range of working temperatures.
Slip will not be induced even under extremely hard operating conditions as the facings will not deteriorate.

SINTERED BRONZE CLUTCH



JCB ROCESTER STAFFS
UTTOXETER 3122
TELEX 3654

BIC5

MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPAULINS, ETC.

NOTICE.—Orders for advertising are accepted on the understanding that the Editor may make any alterations in an advertisement to ensure its conformity with the style and standards of "The Contract Journal." The Proprietors reserve the right to suspend, cancel or refuse an advertisement without stating any reason. No undertaking is given that an advertisement will be published on any specified date. Communications which are not actual replies to the advertisement will not be forwarded. The Proprietors reserve the right to open communications and to withhold those not in accordance with this rule.

AIRCRAFT HANGARS, sold as fully reconditioned. Erection and Cladding Service. Several types avail. NEW STEEL STRUCTURES.—Designed, Fabricated and Erected.
HEYMAN CONSTRUCTIONS, LTD., Princes Road, Dartford, Kent. Tel.: Dartford 26331.

HIRE — HIRE — HIRE.
PROPS, FLOOR CENTRES, ROADFORMS, STRUTS, "H" FRAMES, etc.—Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADVance 5691-3.

WANTED, all types of Non-Mechanical Builders' Plant, i.e., PROPS, TRENCH SHEETING, etc. Sites cleared by arrangement.
PLANT AND BUILDING EQUIPMENT, LTD., 1 Chatfield Road, London, S.W.11. BATtersea 9213.

KWIKFORM UNIT FRAMES 1,000 available x 2ft. 3in., 200 x 6ft., in good condition. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. ADVance 5691-3.

SURPLUS STORES for SALE. Bolts and General Oddments. Send for details.—Write Box M.5248, "The Contract Journa."

CLASSIFIED ADVERTISEMENT RATES:
PLANT AND MISCELLANEOUS
Four lines or less 14/-, and 3/- for every additional line.
Box number 1/- extra.
Display £2 10s. per single column inch.

FLYOVER FOR SALE. — CUBITTS FITZPATRICK SHAND have available for SALE in the spring a TEMPORARY VIADUCT used on the Park Lane Improvement Scheme. This will have been in use for about one year only. Cost £29,000. Overall length 740ft., maximum height to surface 17ft. 6in., width 25ft., catwalk width 2ft. 6in. Max. gradient 1 in 18. Contains approx. 165 tons of steel. Price £17,500.—Apply to. LEMAND MACHINERY, LTD., Rowsley, Matlock, Derbyshire. Tel.: Darley Dale 3391.

WANTED, OBSOLETE and WASTE FIREBRICK MATERIAL suitable for grinding. Any quantity considered. — Write Box M.5275, "The Contract Journal."

NEW Larssen PILING, 1GB, 2 and 2B, for immediate HIRE, 16ft.-30ft. lengths.—MABEY HIRE CO., LTD., 54 Victoria Street, London, S.W.1. Tel.: VIC. 8025 and Manchester Broughton 3959.

FOR SALE, STEEL-FRAMED STORAGE SHEDS, suitable for transport contractors, etc., 150ft. x 50ft. x 15ft. eaves.—F. R. EVANS (LEEDS), LTD., Waterloo Lane, Leeds, 13.

FOR SALE.
TIMBER BUILDINGS: 25ft. wide, from 40ft. to 140ft. long; 28ft. wide, from 50ft. to 150ft. long; 30ft. wide, from 60ft. to 160ft. long. With or without floors.
NISSEN HUTS: 36ft. x 16ft., from £60; 36ft. x 24ft., from £70; 36ft. x 30ft., from £90.
ROMNEY ALL-STEEL BUILDINGS: 96ft. x 33ft., from £350.
F. JAMES AND SONS, Newport Pagnell 18 and 19.

ERECTION MASTS for HIRE. To lift from 1 to 20 tons, 30ft. to 150ft., Block and Tackle, Hand-operated WINCHES. From £1 per day.—STOKES OF CAMBRIDGE, LTD., Trinity Hall Farm, Milton Road, Cambridge. Telephone 53218.

EX GOVERNMENT MILLS 90° SCAFFOLD CLIPS, delivered free in quantity within 100 miles: 100 at 2/6 each; 500 at 1/6 each; 1,000 at 1/3 each; 5,000 at 1/- each.—J. T. LEAVESLEY, LTD., Alrewas, Burton-on-Trent, Staffordshire. Tel.: Alrewas 354/5/6.

SLEEPERS suitable for temporary roads. CROSSING TIMBERS from 9ft. to 15ft., size 12in. x 6in. and 14in. x 7in.—KENNETH SHEPLEY, 73 Boodle Street, Ashton-under-Lyne, Lancs. Tel.: ASHton 3338.

HARDWOOD WOODEN ROLLERS. — Hardwood Wooden Rollers, 5½in./6in. dia., solid, Ash and Elm, 6ft. long. Quantity available 400. Price 10/- to 15/- each, f.o.i. Park Royal, according to quantity. Write Box M.5265, "The Contract Journal."

APPROX. 200 tons RE-LAYABLE 75lb. R.B.S. FLAT BOTTOM RAILS, 36ft., and Accessories. With or without Concrete Sleepers. — W. H. ARNOTT, YOUNG AND CO., LTD., Tontine Chambers, Dixon Lane, Sheffield, 1.

SLEEPERS—RELAYABLE & ROADWAY
CROSSING TIMBERS—ALL SIZES
DELIVERY ex STOCK
F. HARDWICK LTD.
ARMLEY ROAD, LEEDS 12. Phone: 23487

All Grades Tarred and Dry Limestone, Hardcore, Ashes, Red Shale, Concrete Aggregates, High Grade Screened Building Sand delivered in the Midlands, Nottingham area or F.O.R. Capacity 750 tons daily, hopper loaded, weighbridge on site, 4 miles from Nottingham.
SHENINGTON QUARRIES LTD.
2 BOSWORTH ROAD, NOTTINGHAM
Telephone - Nottingham 84819

SLEEPERS
LARGE STOCKS. ALL GRADES.
PROMPT DELIVERY.
BUNTING, Mansfield Road, ASTON
Telephone: Aston Common 259. near Sheffield

PODMORE WORKS

SITE HUTS OFFICES STORES
ALL SIZES - PROMPT DESPATCH
PODMORE WORKS LIMITED
769-773, GARRATT LANE, LONDON S.W.17
PHONES: WIMBLEDON 7622

SPECIAL OFFER OF LARGE SIZE TUBE
10in. Tube in lengths up to 40ft.
12in. Tube in lengths up to 40ft.
14in. Tube in lengths up to 20ft.
15in. Tube in lengths up to 20ft.
16in. Tube in lengths up to 40ft.
18in. Tube in lengths up to 25ft.
20in. Tube in lengths up to 20ft.
All of these sizes can be supplied plain ends or flanged.
Also in stock a quantity of 24in. Tube, flanged in lengths of approximately 24ft.
Large stocks of smaller size Tube always available.
MIDLAND IRON & HARDWEAR CO. (Cradley Heath), LTD.
CRADLEY HEATH, STAFFS
Telegrams: Pipes, Cradley Heath *Telephone:* Cradley Heath 66364-5-6

NEW STEEL TRUSSES

15ft.	-	-	-	£8	5s.
20ft.	-	-	-	£12	10s.
25ft.	-	-	-	£15	
30ft.	-	-	-	£21	
35ft.	-	-	-	£26	
40ft.	-	-	-	£34	
45ft.	-	-	-	£38	
50ft.	-	-	-	£47	

All prices ex-works. All painted one coat oxide primer. Purlins, stanchions, girders, portal frames and complete buildings.
NORD ENGINEERING
Oundle Road, PETERBOROUGH
Tel: 4797

NEW TARPAULINS
Green Rotproofed Double Flax Sewn Seams. Reinforced Brass Eyelets with Spliced-in Ropes. In JUTE, COTTON and FLAX. Write for price list, samples and discount terms.
RECONDITIONED & REDRESSED EX-RAILWAY TARPAULINS, specially selected, repaired, fitted with eyelets and new ropes and REDRESSED BOTH SIDES WITH BEST QUALITY LINSEED OIL DRESSING:
10′ x 7′ £1 10 0. 14′ x 10′ £3 0 0. 20′ x 14′ £6 0 0.
Ex Stock.—Carriage paid England and Wales.
Actual Makers of reliable tarpaulins for over 100 years. Buy from us for satisfaction.
POTTER BROS. (TARPAULINS) LTD.
(Dept. CJ) SHREWSBURY. 'Phone 2256. Est. 1855

● call
ADVance 5691/2/3

FOR ALL YOU NEED IN
Reconditioned and New
SCAFFOLD TUBE (Steel and Alloy)
PUTLOGS (Steel and Alloy)
FITTINGS · "H" FRAMES
BOARDS · PROPS · STRUTS
TRESTLES AND SPLITHEADS
FLOOR CENTRES
COLUMN AND BEAM CLAMPS
ROAD FORMS
● YOU CAN'T BUILD WITHOUT US
Evans of Bow
C. EVANS & SONS LTD., Burnside Wharf, Burnside Street, Bow, London, E.3

HIRE LADDERS
UP TO 80FT. EXTENDED
TOWER LADDERS
UP TO 35FT. WORKING HEIGHT
POLE LADDERS
UP TO 80 RUNGS
TRESTLES & STEPS
FROM
JOHN MACNAMARA & CO. LIMITED
BUSH ROAD, LONDON, S.E.8.
BERMONDSEY 3275 & 1435

ACROW PROPS
Accurately straightened by machine. Repaired. Repainted.
Regular collection and delivery service.
We will quote for any quantity.
WRIGHT ENGINEERING CO.
Back Lane, Burley-in-Wharfedale, Yorks.
Telephone: 3253

FENCING
W. A. SKINNER & CO. LTD.
LONG DITTON, SURREY
Phone: EMBERBROOK 1960-1961
SUPPLIED AND ERECTED IN ANY DISTRICT

MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPAULINS, ETC.

BUILDINGS — STEEL - FRAMED. Bellman Hangars, 175ft. x 96ft. New or second-hand Galvanised Sheeting. Also larger Hangars available.
Super Robin Hangar, 76ft. x 61ft. 6in. New Galvanised Sheeting.
Blister Hangars, 91ft. span, any length, in 7ft. 6in. multiples, with new Galvanised or Asbestos Sheeting.
Romney Buildings, 35ft. span, any length in 8ft. multiples.
Nissen Buildings, 16ft., 24ft. and 30ft. span. Any length in 6ft. multiples, with new or second-hand sheeting.
Send for full details, with illustrated leaflet, to:
GEORGE COHEN, SONS AND CO., LTD.,
Wood Lane, Shepherds Bush, London, W.12.
Telephone Shepherds Bush 2070—Extension 18.

NEW SCAFFOLD BOARDS. — Selected Swedish Whitewood: 1-12 boards, 1/9¾ ft.: 13 to 50 boards, 1/7¾ ft.: 51 to 100 boards, 1/6 ft.: 100 boards or over, 1/4¼ ft. With 1in. x 20-gauge galvanised hooping and binding. Quantities over three standard—prices on application. Delivery from stock, carriage paid 25-mile radius.—H. C. HILL, LTD., 68-70 Penge Road, South Norwood, S.E.25. Telephone: SYDenham 3131/4.

FOR SALE, T2 HANGARS, 240ft. long x 120ft. wide, in first-class condition. Now standing Southern England. Dismantling and re-erection undertaken at low cost. Others available dismantled. HEYMAN CONSTRUCTIONS, LTD., Princes Road, Dartford, Kent. Tel.: Dartford 26331, 124 Victoria Street, London, S.W.1. Tel.: Victoria 9351.

GREASE GUNS, heavy duty, 70 per cent. off list price, Tecalemit, 29½oz. flexible tube, hexagon head, hand lever operated, brand-new condition, 60/- each, six at 55/-, 20 at 48/-, Hydraulic head, 10/- extra.
CROMWELL CO., Newport, Mon. 59045.

FOR SALE, U.S.A. PREFABS.: Shell, £50; with Floors, £75; also Oak Floors, 12ft. x 8in., £5; Roof Sections, 14ft. x 4ft., £1 10s. Delivered free within a radius of 100 miles.—Inquiries: J. ROWLAND AND SONS, Woodside Road, Eastleigh. Telephone, Eastleigh 3259.

C. EVANS AND SONS, LTD.—Moving with the times.—See INDEX and this Section for our other advertisements.

DIRT, GREASE, OIL, the grime of years, melt away before the high-velocity jet of DRY steam and detergent with the "SPEEDYJET" Electric Mobile Steam Cleaner. Compact, portable, without fumes or fire risk: ideal for machinery, contractors' plant, transport vehicles, yards. Just plug in and ONE man does the work of five and much more thoroughly. Let us demonstrate at your premises. Send for leaflet S.231: BASTIAN AND ALLEN, LTD., Ferndale Terrace, Harrow, Middlesex. Telephone: HARrow 7171.

NISSEN-TYPE HUTS for SALE. Prompt dispatch of 16ft., 24ft. and 30ft wide Huts: also Romney HUTS, 35ft. wide, and BLISTER HANGARS, 86ft. 6in. and 91ft. wide. These buildings are in various lengths and comprise steel framework with galvanised corrugated steel sheeting.—Full details from Dept. (128) J. THORN AND SONS, LTD., Brampton Road Bexleyheath, Kent. Telephone: Bexleyheath 0021.

PREFABRICATED STEEL-FRAMED BUILDINGS from stock: 30ft., 40ft., 50ft., 60ft., 75ft., 100ft. clear spans, and lengths in increments of 12ft. 6in. Sheeting may be either asbestos or galvanised.—Write for Catalogue Ref. K.104, from THE LILLESHALL CO. LTD., Oakengates. Telephone: Oakengates 120.

SCAFFOLDING. — Urgently WANTED, Steel and Alloy SCAFFOLD TUBE and all types of SCAFFOLD COUPLERS. Inquiries for Non-mechanical Builders' Plant welcomed.—Contact: SCAFFOLDING SERVICES, 69 Upton Lane, Forest Gate, London, E.7. Tel.: Gra. 2002.

SLEEPERS for access roads and all purposes. TIMBERS for shoring, paling and walling. Consult us first.—TRACK SUPPLIES AND SERVICES, LTD., Haversham Bank Sidings, Wolverton, Bucks. Tel.: Wolverton 2242.

DERBYSHIRE LIMESTONE, all grades, dry or tarred, up to 200 tons per day, or graded smaller sizes available, delivered to site.
GEORGE DAVIS (HAULAGE), LTD.,
2 Bosworth Road, Nottingham. Telephone 84819.

SEA-WASHED PEBBLES for paving, any grading from 1-9in. DORSET PEA-BEACH for pebble-dashing—screeded or natural. Samples and quotations by return.—H. WRAXALL, Moorside, Uplyme, Lyme Regis, Dorset. Telephone: Lyme Regis 385.

SLATE DAMPCOURSE, Welsh, in loads 8/14 tons, delivered. Prices on application. — JOSEPH NANSON (SLATES), LTD., Stockton Heath, near Warrington.

MILD STEEL AND CAST-IRON PIPING. Large stocks available, including unused material. Plain, Screwed, Flanged, Victaulic, Unicone, Johnson, etc., including the following selection:—
500ft. 48in. Welded.
2,000ft. 36in. Welded.
900ft. 28in., 1,000ft. 27in., 800ft. 26in., 700ft. 24in., 1,000ft. 18in., 700ft. 24in., 1,000ft. 10in., 700ft. 12in. Unused Bitumen Lined and Wrapped.
800ft. 14in. o.d., ⅜in. thick, Welded, unused.
3,000ft. 12¾in. o.d., ⅜in. thick, Seamless, A.P.I. Quality.
2,000ft. 10in., ¼in. to 5/16in. thick. Second-hand.
300 x 12ft. lengths 10in. Unused Stanton Cast-iron Flanged, Class "D."
2,000ft. 8in., approx. ¼in., Second-hand.
20,000ft. 6in., 5/16in. thick, Unused, A.P.I. Quality, Bitumen Wrapped.
10,000ft. 6in., 5/16in. thick, Unused, A.P.I. Quality.
10,000ft. Unused 4in., ¼in. thick, Seamless, Bitumen Wrapped.
10,000ft. 1½in. Galvanised, Second-hand.
80,000ft. 1½in. Scaffolding, 16ft. lengths.
4,000ft. 1in., Galvanised, Class "B."
6,000ft. ½in., Galvanised, Class "B."
Bends, Tees, Valves, etc., to suit. Please ask for complete list.
FRED WATKINS (ENGINEERING), LTD.,
Coleford, Glos. Telephone: Coleford 2271—5 lines.

SECOND-HAND TIMBER in all sizes always available from stock, e.g., Pitch Pine Baulks from 12in. x 6in. to 14in. x 12in., and Deals 7in. x 2½in., 7in. x 3in., 9in. x 3in., 9in. x 4in., suitable for shoring, etc.
KENNETH SHEPLEY, 73 Boodle Street, Ashton-under-Lyne 3338, Lancs.

WANTED, Acrow PROPS, all sizes; 1-ton and 2-ton Electric HOIST BLOCKS; and Heavy Duty CENTRE LATHE to swing up to about 95in. over saddle, take about 16ft. between centres, preferably a.g.h., age, condition and accuracy not important.
Write Box M.5259, "The Contract Journal."

FLOOR CENTRES, ROADFORMS, TRENCH SHEETS, STRUTS, COLUMN CLAMPS, etc., and all types of Non-Mechanical Equipment. For SALE and HIRE.
PLANT AND BUILDING EQUIPMENT, LTD.,
1 Chatfield Road, London, S.W.11. BATtersea 9213.

FOR SALE, 3,000 Second-hand CONCRETE SLEEPERS, with S.I. Chairs for 95lb. R.B.S. Rail.
W. H. ARNOTT, YOUNG AND CO., LTD., Tontine Chambers, Dixon Lane, Sheffield, 1.

NEW TARPAULINS

EXACT SIZES ONLY

JUTE, 16oz. before green wax proofing: 12ft. x 9ft. each 82/6, 15ft. x 12ft. each 132/6, 18ft. x 12ft. each 152/6, 21ft. x 15ft. each 204/6.
FLAX, 16oz. before green chemical proofing: 12ft. x 9ft. each 97/-, 15ft. x 12ft. each 149/6, 18ft. x 12ft. each 168/6, 21ft. x 15ft. each 237/6.
COTTON DUCK, 14oz. before green chemical proofing: 12ft. x 9ft. each 104/3, 15ft. x 12ft. each 162/6, 18ft. x 12ft. each 186/6, 21ft. x 15ft. each 258/6.
BRAND NEW SHEETS, carriage paid England and Wales. Fitted long ropes, brass eyelets and strengthening patches.

ANY QUANTITY FROM LONDON STOCK

JOHN MACNAMARA & CO. LTD.
BUSH ROAD, DEPTFORD, LONDON, S.E.8. BER. 3275-1435

Genuine Bargains in Ex-Gov. Recond.

PLAN CHESTS



Double Elephant size. Soft-wood, reconditioned. Rich brown finish.
6 Drawer ... £24 0 0
8 Drawer ... £26 10 0
10 Drawer ... £29 0 0
Carriage £1 10 0
Enquiries invited for plan chests—steel, oak or mahogany, new or reconditioned.



4-DRAWER FILING CABINETS
Foolscap, plywood panels. Finished rich brown shade. Reconditioned. £6 0 0. Carriage 15/- extra.

FOLDING FORMS



Sound well made. 6ft. x 10in. **17/6** Carr. 3/6

FOLDING TABLES from 27/6. FOLDING CHAIRS, 12/6, and many more bargains in Office Furniture, Racks, Benches, Cupboards, Lockers, etc.
Write for illustrated Lists.

Bloom & Spivack (Furniture) Ltd.,
163 Old Street, London, E.C.1. CLE 0138

Graded
CALCINED FLINT

The new white durable AGGREGATE for exposed renderings, road markings etc.

Trent Aggregate Co.
Dilhorne Road, CHEADLE, Staffs.
CHEADLE 3287

RAILWAY
SLEEPERS

100,000 in Stock **All Grades**

Delivered by road anywhere

Apply: **H. BRIDGES, Contractors,**
Kingsbury Road, Minworth, Sutton Coldfield
TELEPHONE: ASHFIELD 2071/2
or **Cotstone Quarries, Broadway, Campden**
TELEPHONE: CAMPDEN 229

FOR SALE

8,000 lengths 1½" bore 1⅞" outside diameter steel scaffolding in 12 foot lengths 13/- each.

40,000 Mills type scaffolding clips 1/- each.

L. W. VASS LIMITED
AMPTHILL · BEDFORD
Telephone: AMPTHILL 3255/7

NEW SITE HUTS AT REDUCED PRICES

Size	Shiplapped	F/Edge
8ft. x 6ft.	£36 4 0	£32 18 0
10ft. x 8ft.	£48 19 0	£44 18 0
12ft. x 8ft.	£54 17 0	£48 18 0

Including Floors.
Carriage paid 25 miles
H. C. HILL, LTD.,
68/70 Penge Road, London, S.E.25.
Telephone: SYDenham 3131/5.

UNUSED STEEL PLATES

TROUGH TYPE, 10ft. long x 12¼in. wide x 5/16in. thick. Trench Sheets, Guttering, Storage Pallets, Piles, Shuttering, etc.

FLAT TYPE, 10ft. x 13in. x 5/16in., 7/8in. Ramps, Floor Plates, Temporary Roadways, Shuttering, Scaffold Boards, Shelving, etc.

VERY CHEAP — SEND FOR SKETCH

BARNES & BELL LTD.
Reusable Division,
BARBELL WORKS, COATBRIDGE, SCOTLAND
Telephone: Coatbridge 2490.



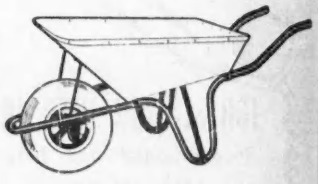
FOR ALL YOU NEED IN

Site Roads & Fencing, Sleepers, Sommerfeld Track & Fence, Pierced Steel Plank

YOU CAN'T BUILD WITHOUT

Evans of Bow

C. EVANS & SONS LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Telephone: ADVance 5691/2/3



Small tools of every description

Large stock
Competitive prices

Youngman

CONTRACTORS' PLANT DIVISION,
Wandsworth Road, London, S.W.8.
Telephone MACaulay 2233.

MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPAULINS, ETC.

FOR SALE.
50 tons unused BLACK CORRUGATED SHEETS. 10ft. 6in. long, 10/3in. corrugations, 15/17-gauge.
100 tons good second-hand GALVANISED CORRUGATED SHEETS, 5ft., 6ft., 7ft. and 8ft. lengths, 8/3in. and 10/3in. corrugations, 18/20-gauge.
Delivery from stock.
Inquiries to:
GEORGE COHEN SONS AND CO., LTD., 600 Wood Lane, Shepherds Bush, London, W.12. Telephone: Shepherds Bush 2070—Ext. 337.

SCAFFOLDING, etc., **FOR SALE** from STOCK: EXCELLENT CONDITION; SCAFFOLD FITTINGS —FULLY RECONDITIONED, or serviced, or selected second-hand condition—all makes available. Putlog Couplers from 2/6. Double Couplers from 3/-. Lined Steel and Alloy SCAFFOLDING TUBE and PUTLOGS in good condition. Reconditioned SHORING PROPS and TRENCH STRUTS.—SOULSBY AND CO., 87 Deans Lane, Edgware, Middlesex. Telephone: Mill Hill 4644 (or 1855) and NORth 4112.

GEORGE H. CAMPBELL AND CO.
Approx. 5,000yd. originally 90lb./yd. B.S. RAIL (now 85lb./yd.—5^3⁄$_8$in. high), in standard 45ft. lengths.
Approx. 50 tons of second-hand S.I. CHAIRS.
Approx. 4,000 S.I. CHAIRED RE-LAYABLE SLEEPERS.
Atlas Works, Carlisle Road, Airdrie.

FOR SALE, 48 Braithwaite 4ft. TANK PLATES, in good condition, inspected our works. HORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

A CROW SCAFFOLD UNITS, 4ft. 6in. or 6ft. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADVance 5691-3.

MABEY AND JOHNSON, LTD., offer for SALE and HIRE:—
TRENCH SHEETING and STRUTS.
Larssen PILING.
PROPS, COLUMN CLAMPS, FLOOR CENTRES.
BAILEY BRIDGING.
"L" TRESTLING.
12-ton and 15-ton JACKS
All immediately available.
MABEY AND JOHNSON, LTD.,
54 Victoria Street, London, S.W.1.
Tel.: VIC. 8025 (6 lines).
Manchester Office: Broughton 3959.

WANTED: CORRUGATED STEEL SHEETS. Second-hand. Any area. Sites cleared. Prompt payment.—J. DUFFY, Bank Street, Clayton, Manchester, 11. Telephone: East 3361.

TRUSCOTT FENCING, LTD., DORKING, SURREY. Telephone 3416.
All classes of FENCING supplied and erected. Specialists in Chain Link. Estimates free.

WANTED, Braithwaite SECTIONAL TANKS or LOOSE PLATES, 4ft. square, ^{3}⁄$_{16}$in. to ^{5}⁄$_{16}$in. thick.—FRED WATKINS (ENGINEERING), LTD., Coleford, Glos.

FOR SALE, Larssen 1GB BOX PILES, four 60ft. long, unused, lying Manchester. — LEHANE, MACKENZIE AND SHAND, LTD., Normanhurst, Matlock.

WANTED, Two large size second-hand BLISTER HANGARS or similar structures. Cash Waiting. Write Box M.5249, "The Contract Journal."

WANTED: Second-hand GRANITE KERB, SETTS, BLOCKS; also PAVING, any quantity. Full dets., write Box F.H.987, "The Contract Journal."

SECOND-HAND SECTIONAL TIMBER BUILDINGS, 24ft. x 12ft., £102; 30ft. x 15ft., £138; 40ft. x 18ft., £192; 60ft. x 20ft., £302. Floors extra. Delivery included 100 miles. Also similar new Buildings. Lists.—UNIVERSAL SUPPLIES, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 32948.

FOR SALE, R.S.J.s: 20 tons 13in. x 5in. in 28/30ft. lengths, at £22 per ton ex works; 10 tons 5in. x 3in., mainly 29/31ft. lengths, at £34 per ton ex works.—Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADVance 5691-3.

FOR SALE, ex Government PONTOON CENTRES. 20ft. x 6ft. 6in., easily coupled and ideal for portable landing stages, temporary harbours, bridging, etc. Only £10 each.—J. T. LEAVESLEY, LTD., Alrewas, Staffordshire. Telephone: Alrewas 334/5/6.

WANTED, FILTRATION UNIT for swimming pool of 180,000-gallon capacity, either complete unit or parts. Buyer will dismantle if necessary. H. D. WINTHROP, Builder, High Point, Fryerning, Ingatestone, Essex.

FOR SALE: 6,000 RAILWAY SLEEPERS. Guaranteed Grade 5. Suitable for silage, roadways, buildings, bridges, machinery, etc. — Write 'phone or call: JOHN HILROY AND CO., 290 Shirley Road, Southampton. Telephone 76230.

TRENCH SHEETING, 13in. centres to overlap, in lengths 6ft. to 16ft., also STRUTS, Sizes 1 to 3. For SALE and HIRE.
PLANT AND BUILDING EQUIPMENT, LTD.,
1 Chatfield Road, London, S.W.11. BATtersea 9213.

WANTED: BRICK and CONCRETE Hardcore, any quantity. — R. BARKER (PECKHAM), LTD., New Cross 3337.

CLINKER & ASHES
HARDCORE
ETC.

GEO. E. CLOKE LTD.
NEASDEN LANE, LONDON N.W.10
Dollis Hill 7777 P.B.X.

PLANT HIRE
HEAVY HAULAGE
DEMOLITION

TARPAULINS

NEW, GREEN ROTPROOFED, SEAMS DOUBLE-SEWN WITH BEST LINEN THREAD; REINFORCED BRASS EYELETS; SPLICED ROPES

Size approx.	Weight before proofing (16oz.) JUTE	(18oz.) FLAX	(14oz.) COT. DUCK
12ft. x 9ft. ...	£3 5 0	£4 9 6	£4 13 0
15ft. x 9ft. ...	£4 2 0	£5 12 0	£5 16 3
15ft. x 12ft. ...	£5 10 0	£7 9 6	£7 15 0
18ft. x 12ft. ...	£6 12 6	£8 18 9	£9 6 0
18ft. x 15ft. ...	£8 5 0	£11 5 0	£11 12 6
20ft. x 15ft. ...	£9 3 6	£12 11 6	£12 18 6
24ft. x 18ft. ...	£13 2 6	£17 18 6	£18 12 0
30ft. x 21ft. ...	£19 5 0	£25 17 6	£27 2 6

EX-GOVERNMENT, RECONDITIONED

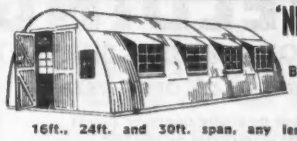
10ft. x 7ft. ... £1 10 0	18ft. x 12ft. ... £5 15 0
10ft. x 10ft. ... £2 10 0	18ft. x 15ft. ... £6 15 0
12ft. x 10ft. ... £3 0 0	20ft. x 15ft. ... £7 10 0
14ft. x 10ft. ... £3 10 0	20ft. x 18ft. ... £9 0 0
15ft. x 12ft. ... £4 15 0	24ft. x 18ft. ... £11 0 0
20ft. x 10ft. ... £5 10 0	30ft. x 20ft. ... £14 0 0

GENUINE EX-RAILWAYS, RECONDITIONED

10ft. x 10ft. ... £2 5 0	20ft. x 10ft. ... £5 0 0
14ft. x 10ft. ... £3 0 0	20ft. x 14ft. ... £6 5 0

All sheets are eyeletted and roped.
Immediate delivery. — Carriage paid.
Money refunded if not satisfied.

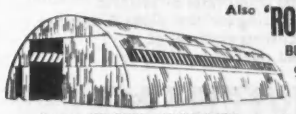
HORELAND TRADING CO. LTD. (CJ)
38 St. Pancras Way, London, N.W.1.
Telephone: EUSton 5210 and 2383



'NISSEN' TYPE BUILDINGS

16ft., 24ft. and 30ft. span, any length.

Also **'ROMNEY'** BUILDINGS 96' x 35'



Large TIMBER BUILDINGS ex stock.

NAYLORS (BILSTON) LTD. 204 Wolverhampton St., Bilston, Staffs.
'Phone: Bilston 41689, 42448

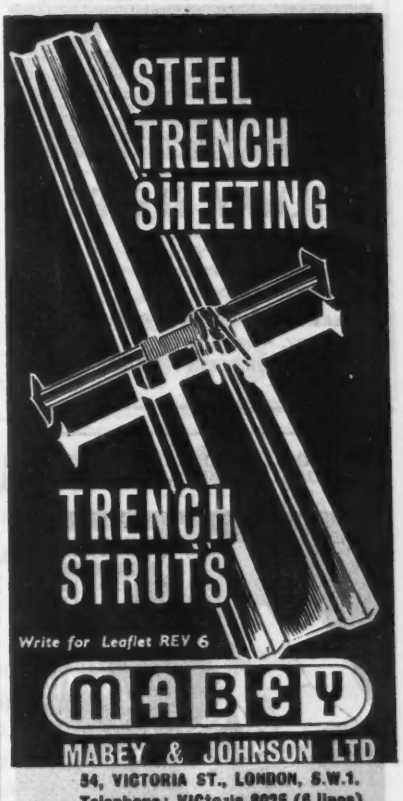
REINFORCED
RUBBER HOSE
FOR AIR COMPRESSORS
SUCTION & DELIVERY, ETC.

THE CENTRAL MANUFACTURING & TRADING CO. (DUDLEY) LTD.
OLD HILL STAFFS
Phone: CRADLEY HEATH 69434 (10 lines)
Telex 33-310

N. MIDLANDS DEPOT	SOUTHERN DEPOT.
116 SIDDALLS RD., DERBY	16 HEATH ROAD, ST ALBANS
Phone: 46521/2	Phone: 54731/2

CAMBRIDGE ASPHALTE
CO. LTD.
SWANN ROAD, CAMBRIDGE
Telephone: 2606 & 55621/2
ALSO
FLEXIBLE ROOFING PITCH MASTIC

EDWARD ASH, LTD.
FOR
RAILWAY SLEEPERS
AND
CROSSING TIMBERS
KENT WHARF, CREEKSIDE, DEPTFORD, S.E.8
Telephone: TIDeway 2681-2



54, VICTORIA ST., LONDON, S.W.1.
Telephone: VICtoria 8025 (6 lines)
MANCHESTER: Broughton 3959
Dal/71261CJ

STORAGE TANKS (Totally enclosed)

CYLINDRICAL, HORIZONTAL and VERTICAL, 250-gallon to 12,000-gallon.
RECTANGULAR, HORIZONTAL and VERTICAL, 600-gallon to 7,500-gallon.
Also OPEN TOP from 250-gallon to 3,400-gallon.
We will be pleased to quote for NEW TANKS for all sizes.

COX & DANKS LIMITED

Branches:

BIRMINGHAM: Scapa Works, Langley Green, Oldbury, Birmingham. Tel.: Broadwell 1611. Telex: 33183.

MANCHESTER: Frederick Road, Pendleton, Salford, 6. Tel.: Pendleton 2481. Telex: 66448.

SHEFFIELD: Scapa Works, Wadsley Bridge, Sheffield, 6. Tel.: Sheffield 344391. Telex: 54205.

LONDON: Scapa House, Park Royal Road, London, N.W.10. Tel.: Elgar 5811. Telex: 25239.

BEDFORD: Scapa Works, Melbourne Street, Bedford. Tel.: Bedford 67331.

MISCELLANEOUS ITEMS, ETC.

ALL TYPES of Non-Mechanical Equipment, including SKIPS (Circular Tipping and Rollover Concrete Pouring), PROPS, BEAM CLAMPS, TRESTLES, SPLITHEADS, etc. For SALE and HIRE.
PLANT AND BUILDING EQUIPMENT, LTD.,
1 Chatfield Road, London, S.W.11. BATtersea 9213.

TARPAULINS for SALE and HIRE.
EDWARD ASH, LTD.,
Kent Wharf, Creekside, Deptford, S.E.8.
Telephone: Tideway 2661/2.

ASH

RED and BLACK ASH for SALE, loaded, available at Messrs. Johnsons Iron and Steel Co., Ltd., Church Lane, West Bromwich, from 4th December to 18th December, between 8 a.m. and 3 p.m.

Contact Mr. KENNEDY—West Bromwich 1181.

NEW STEEL ROOF TRUSSES AND COMPLETE BUILDING FRAME WORK BUILT TO ORDER. EARLY DELIVERY.

BUNTING, Mansfield Road, Aston,
Phone: Aston Common 259. Nr. Sheffield

GRANITE SETTS
DELIVERED ANYWHERE
HARRIS & BAILEY LTD.
CROYDON
ADDiscombe 3181 Ref: Mr. T. A. Jones

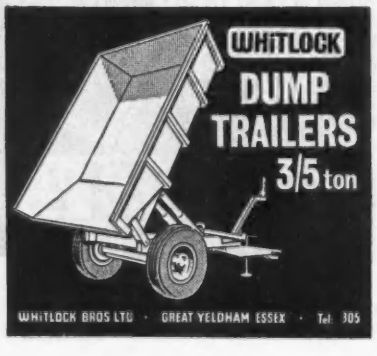
DIVING
Underwater Surveys, Maintenance Repairs, Construction and Demolition Work
KINNEAR, MOODIE & CO. LTD., GLASGOW
Telephone: DOUGLAS 5189

SECONDHAND PLANT
20,000ft. 10/21ft. STEEL SCAFFOLDING ..... 1/3½d. ft.
30,000ft. 6/9ft. STEEL SCAFFOLDING 1/2d. ft.
FITTINGS, ACROW PROPS, SPLITHEADS, TRENCH STRUTS also available.
Immediate delivery from stock
A. F. SIMPSON, LTD.,
68/70 Penge Road, London, S.E.25
Telephone: SYDenham 3131/5

HESSIAN
is STILL the CHEAPEST MEANS for curing concrete
H. G. WATTS & CO. LTD.
52 South Molton Street, W.1
Mayfair 0964/5

RAILWAY SLEEPERS
10,000 in stock
BEFORE ORDERING RAILWAY MATERIALS OF ANY KIND
WRITE OR TELEPHONE:
E. L. PITT & CO. (Coventry) Ltd.
BRACKLEY. NORTHANTS.
Telephone: BRACKLEY 2271/2
Telex: 83159

ELECTRICAL, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES



ELECTRICAL EQUIPMENT, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES

NEW TIPPERS in stock for immediate delivery.
Forward Control Diesel Bedfords, 7½-ton Telehoist, d/s, 6 cu. yd.
7½-ton Autolifts, 6 cu. yd., fixed side.
7-ton Telehoist, 6 cu. yd., d/s.
Bedford 6-ton normal control Short Tipper Chassis/Cab, 300 cu. in., Diesel, gear and body available, or transferred.
4-wheel drive Diesel Tipper Chassis and Cab, Bedford RSH, with power take-off, at list, plus special equipment, h/d tyres, etc.
Used Bedford 1957 6-ton i.w.b. d/s Edbro Steel Tipper, Diesel, £395.
Best available finance terms—delivery.
Bedford Main Dealers.
CITY MOTORS,
Botley Road, Oxford. Telephone 48021.

COVENTRY CLIMAX Diesel FORK TRUCK, 5,000lb., 9ft. lift, needs slight attention, £575. Or EXCHANGE similar value MACHINE TOOLS or CONTRACTORS' PLANT, i.e., Lathe, Milling Machine, Diesel Welder, Scaffolding, Crane or Compressor, etc. CULLUM, 16 Southcote Road. SANderstead 7591.

J. J. JOHNSTON AND CO., LTD., for REPAIRS, OVERHAULS and FIELD SERVICE to all types of Contractors' Plant, Mobile Cranes, etc.—'Phone Elgar 6905. RAPIER SPARES AND SERVICE, Coronation Road, Park Royal, London, N.W.10.

HANOMAG SPARES, ENGINES and GEARBOXES, etc., for SALE. New and second-hand. DOUGLAS - HAMILTON, LTD., Tunbridge Wells. Telephone: Southborough 1538.

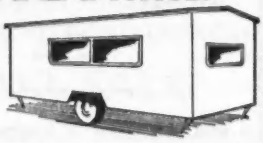
BRISTOL ANGLEDOZERS AND EQUIPMENT. Immediate SPARES and REPAIR Service for all models.—H. A. SAUNDERS, LTD., Main Distributors, The Butts, Worcester. Telephone 26651.

WELDING
SENIOR — HIRE — SERVICE
MUREX — LINCOLN — PETBOW
Double or single operator plants
30-600 amp diesel or electric
Arc cutting for cast pipes & castings
Gas cutting equipment
Skilled operators if required
K. J. SENIOR & Co., Ltd.
FORDWATER TRADING ESTATE
CHERTSEY, SURREY. Tele: Chertsey 2950

FOR HIRE OR SALE



SITE DORMITORIES & OFFICES
WRITE NOW FOR DETAILS



Landsman's Mobile Units are built for the job. On-site accommodation pays dividends. Six men can be comfortably housed for as little as 21/- per man per week. Features include, 6' 4" single beds, 6' 10½" headroom, hot water tank, gas cooker, solid fuel stove, and adequate ventilation.

LANDSMAN'S SERVICES
BUCKDEN · HUNTINGDON · Tel: BUCKDEN 287

RUSTON POWER TO SERVE YOU
From stock: SERVICE EXCHANGE ENGINES Types VRON, VROHN, VRHN, VQBN, VPHN, YEN, VCBN, and PAXMAN RANGE.
Full range of ENGINES from 10RB to 110RB Excavators, SERVICE EXCHANGE ENGINES also stocked for Cranes, Locos., Pumps, Power Packs, etc.
CHANGEOVERS to EXCAVATORS and other PLANT UNDERTAKEN on site by STAFF of competent FIELD ENGINEERS.
TILSLEY AND LOVATT, LTD., Engine and Plant Div., Newstead Trading Estate, Trentham, Stoke-on-Trent.
Telephone: Trentham 57331 and 57332.
Telegrams: "Diesel," Stoke-on-Trent.

CYLINDER HEADS. — Caterpillar, International, Ruston, Diamond T, B.M.C., A.E.C., Gardner, etc., perfectly repaired by our special "FUSION WELDING PROCESS," no matter how badly cracked. Finished, machined, tested, standard. Also Repairs to Crankcases, Sumps, Differentials, etc. Axles, rear and front, reconditioned. Exchange R6, P4 Heads. Established 40 years. Satisfaction guaranteed.—ANGELL AND WILLIAMS (PECKHAM) LTD., Sumner Road, S.E.15. Telephone: RODney 3590.

WANTED, REPLACEMENT PARTS for all Crawler Tractors and Contractors' Plant.
Write Box E.F.513, "The Contract Journal."

LIEBHERR SPARES, small quantity surplus to requirements, for SALE. — Dartford 2198.

GM 71 SERIES
GENUINE SPARES
COMPREHENSIVE STOCKS
40% OFF LIST PRICE
P.R.LOWE & Co. 28 GROVE RD., SUTTON SURREY Tel: Melville 1139

RUSTON EXCHANGE ENGINE SERVICE
Consult the Specialists
Wheatley & Whiteley
99 Kirkstall Road, Leeds 3
Tel: 31122

COACH SPECIALISTS of the SOUTH
always have available a
Large stock of Good Used
PASSENGER VEHICLES
many with C.O.F.s
Ideal for conveyance of staff
Yearly Road Fund Tax £15.10.0
BEDFORD 26 str. Coaches from £75 or suitable for SITE OFFICES, from £50
A.E.C., LEYLAND, etc., 33/35 str. from £100
Let us demonstrate at your premises
E. J. BAKER & CO. (DORKING) LTD.
The Coach Works, Farnham Trading Estate, Farnham, Surrey. Telephone: 4624/7

RUSTON
SERVICE EXCHANGE ENGINES · GENUINE SPARES
OFFICIAL STOCKISTS
TILSLEY & LOVATT LTD.
STOKE-ON-TRENT, STAFFS. Phone: 57331/3. Grams: Diesel

ELECTRICAL EQUIPMENT, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES

FOR SALE.
Bedford 30cwt. LORRY.
L.W.B. Bedford 2/3-ton TRUCK.
L.W.B. Bedford 5-ton Diesel TIPPER.
E.R.F. 7-ton Diesel TIPPER.
Ford Thames 5-ton TIPPER, 4D Diesel.
SOUTH MIDLANDS ENGINEERS,
Shipston-on-Stour. Telephone 612 and 624.

LOW-LOADING TRAILER, knock-out back axle, 16ft. well, vacuum brakes, tyres good, four 1050 x 20 rear, two 1100 x 20 front. Heavily constructed. Good all-round condition. Buffalo 6-ton ROAD ROLLER, Petrol, in good order, bargain. F. CRAWFORD, Agricultural Engineers, Moulton Chapel, near Spalding, Lincs. Moulton Chapel 377/8.

ROLLS-ROYCE SERVICE EXCHANGE ENGINES for Euclid 15-ton, 22-ton and 27-ton dump trucks. Delivered or fitted anywhere in U.K.—TILSLEY AND LOVATT, LTD., Diesel Engine Division, Trentham, Stoke-on-Trent. Telephone: Trentham 57331/3.

WANTED, HD14 TRACK ROLLERS, Single and Double Flange. — Please advise prices and condition to G. CARTER AND SONS, LTD., Yokesford Hill, Cupernham Lane, Romsey, Hants. Telephone: Brishfield 395/6/7.

WELDING

GENERATORS TRANSFORMERS

Double or Single operator plants
30-600 amp diesel or electric
Gas cutting equipment
Underwater Welding and Cutting
Skilled operators if required

THE MARTIN WELDING & CUTTING CO. LTD
BURNHAM ROAD, DARTFORD, KENT
Phone: Dartford 24139. Night: Farningham 2452

FRANK COWLEY

BUSES **200** COACHES

READY FOR YOUR JOB

£425

DELIVERED YOUR WORKS

WE SUPPLY YOU WITH
32, 33, 35 or 56 SEATER

SINGLE or DOUBLE DECK
BUS or COACH

EVERY MACHINE FULLY GUARANTEED
WITH TEST CERTIFICATE

6 UNUSED 900 x 20 TYRES

TAX PAID FOR 12 MONTHS

NEW OR GUARANTEED BATTERIES

FREE DELIVERY

NO EXTRA CHARGES

CHOICE OF
LEYLAND, A.E.C., BRISTOL
or GUY, ETC.

WILL TAKE YOUR OLD VEHICLE IN PART EXCHANGE

FRANK COWLEY

3 Blackfriars Road, Salford, 3

Phone: MANCHESTER BLACKFRIARS 7577
and BLACKFRIARS 1049

WITHOUT FEAR OR FAVOUR, the Matbro is the best fork truck for the timber and concrete trade. Opportunity to PURCHASE a current Series III Matbro Diesel FORK LIFT TRUCK, 6,000lb. capacity, 12ft. lift, torque converter, power steering. One owner. Good condition throughout. History and photograph available. Price £1,495. Terms available.—MATHEW BROS., Matbro House, Beddington Lane, Croydon, Surrey. Telephone. Thornton Heath 3402.

JACKS and HYDRAULIC EQUIPMENT "FACTORY SERVICED." Experienced personnel and modern equipment ensure rapid, reliable and competitive overhauls.—Hydraulic Division, WILLIAM MOSELEY (ENGINEERS), LTD., Bedfont Road, Feltham, Middx.

FOR SALE. 300/400-Amp Murex Diesel driven WELDING SETS, Perkins Engine. Good running order.—WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

COSTAIN MINING, LTD., Acorn Bank Opencast Coal Site, Hartford Road, Bedlington, Northumberland, have for SALE: D8 Series 2U SPARES; D4 Series 7J SPARES. Offers.

WANTED, 9ft. BULLDOZER BLADES. EYNON, Pontrilas 294, Herefordshire.

GUARANTEED USED TRACTOR/CRAWLER SPARES · 300 TRACTORS ALWAYS IN STOCK FOR DISMANTLING · EQUIPMENTS · WINCHES TRACKS · ROLLERS · HEADS, ETC.
SHELTON TRACTOR SPARES LTD.
BULBY, BOURNE, LINCS. Tel: EDENHAM 223-4

ALWAYS AT YOUR SERVICE FOR

RUSTON

SERVICE EXCHANGE ENGINES
GENUINE SPARES
FUEL INJECTION

CONWAY MOTORS
(MANCHESTER) LTD.
LOWER BYROM ST., MANCHESTER 3
Telephone: BLAckfriars 7741/8443

PLANT

FOR SALE.
Caterpillar D4 2T, with L.P.C. Hydraulic Bulldozer, all recently overhauled, spot-on condition, £950.
Allen-Parsons 16/60 TRENCHER, cutter bars up to 5ft., Dorman 4DWD Engine, 16in. and 30in. Buckets, various spares and new teeth, £900.
ERNEST DOE AND SONS, LTD.,
Industrial Division, Ulting, Maldon, Essex.
Tel.: Hatfield Peverel 311; (night) 319.

WANTED, 15BE or 15B EXCAVATOR.
Write Box P.5258, "The Contract Journal."

NEAL'S (PLANT HIRE) LTD
SERVE THE SOUTH

Immediately available for hire on the South Coast:—

Excavators, Tracto-Shovels, Mobile Compressors, Fergusons, Mobile Cranes, 10 BD 3 c.y. Diesel Rollers, Petrol and Diesel Rollers, Concrete Mixers, etc., etc.

All enquiries promptly dealt with

Phone · · Chichester 3777-8-9

PLANT

GENERAL ROADWORK, LTD.
OFFER FOR SALE:
7/8-ton Greens ROLLER, fitted Perkins P4 Diesel Engine, with Scarifier and Driver's Cab, year 1955, reconditioned.
8-ton Marshall ROLLER, fitted Perkins P4 Diesel Engine, with Scarifier and Driver's Cab, year 1953.
6/8-ton Aveling-Barford Diesel ROLLER, fitted Scarifier, Water Tank and Sprinkler and Driver's Cab, year 1954.
Weatherill 4HTW OVERLOADING SHOVEL, year 1957.
10-ton PORTASILO, with Pullwey and Hopper.
14/10 Stothert and Pitt Diesel-driven CONCRETE MIXER.
10/7 7NT Millars CONCRETE MIXER, fitted with Weighgear, Diesel Engine, new 1959.
10/7 7NT Millars CONCRETE MIXER, fitted Diesel Engine, year 1960.
1½yd. Johnson DUMPER, fitted Petter AVA2 Diesel Engine.
Mitcham Road, Croydon, Surrey.
Telephone: THOrnton Heath 6989.

CRANES FOR SALE FROM OUR OWN STOCK. Test Certified before dispatch.
8½-ton Rapier Super Diesel/Electric, pneumatics.
5-ton Coles-Thornycroft, Series 7, Mk. 7, Wire Derricking.
5-ton Michigan Lorry Crane, Dorman Diesel, 25ft. jib.
6-ton Rapier Standard Petrol/Electric, on solid rubbers.
2½-ton Morris Petrol/Electric, pneumatics, electric start.
4-ton New Staffa Diesel/Hydraulic, pneumatics.
2-ton Jumbo Junior Diesel/Hydraulic, pneumatics. 1½yd. Hydraulic Grab.
2-ton Neals NM, Ruston Diesel, pneumatics, 30ft. jib.
2-ton Jones KL22, Diesel, pneumatics, 24ft. jib.
2-ton Rapier 410, Perkins Diesel, tracks, 28ft. jib.
Agents for New Cranes of all types.
Hire Purchase. Spares. Service.
WILLIAM R. SELWOOD, LTD.,
Chandler's Ford, Hants. 'Phone 2981.

FOR SALE OR HIRE: JUBILEE TRACK; TIPPING WAGONS; BOGIES, etc.; B.H. and F.B. RAILS for re-laying or shoring; Pierced Steel PLANKING and SHUTTERING PANELS; HAND WINCHES; SHEAR LEGS and CHAIN BLOCKS; CRANE BUCKETS; LIFTING JACKS; STORAGE TANKS; GIRDERS; ANGLES; CHANNELS and ROOF TRUSSES; Steel Frame and Wooden Section BUILDINGS; Steel and Cast-iron TUBING up to 24in.—CYMRIC TRADING CO., LTD., Llandaff, Cardiff.

DROTTS FOR SALE. — International 8TD6 Drott SKID-SHOVELS, new 1956/58, working machines, checked over, cleaned, resprayed and re-transferred, with 4-in-1 Bucket. Can be inspected at Old Windsor. Price £1,950 to £2,200 each.
AXWORTHY AND COMPANY, LTD.
(Drotts for Hire),
Straight Road, Old Windsor, Berks.
Tel.: Windsor 3434 or 3384.

MANCHESTER AREA.—FOR SALE, Caterpillar D4 LL DOZER, fitted with L.T. Winch. Sound throughout. Can be put straight to work.—ROSEHILL GARAGE (DENTON), LTD., Manchester Road. Tel.: Denton 2926 and 2017.

CIVIL ENGINEERING contractor has for SALE a new 30RB EXCAVATOR with Equipment.
Write Box P.5230, "The Contract Journal."

KEBRIC
PLANT LTD.

CONTRACTORS' PLANT FOR SALE

WACKER BS 50/K VIBRATING RAMMER, new ..... £196 10s.
Single-Tool COMPRESSOR, Lister Diesel Engine, 52 c.f.m., new £395
PARKER 5/3½ CONCRETE MIXER, Petter Diesel Engine, new £180
ROAD MACHINES Cub Diesel DUMPER, 22½cwt., new £446
3 cu. yd. MUIR-HILL DUMPER, 10B, with 4D Perdson Engine £200
Large HIRE FLEET of J.C.B.s, DUMPERS, Drott SHOVELS, VIBRATING ROLLERS, etc.

PETTER ENGINE SPARES

Telephone: HATCH END 6221

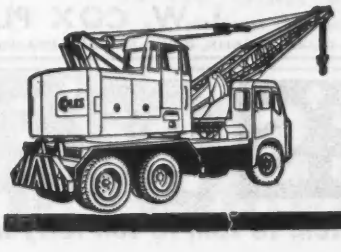
4 THE MEAD, CARPENDERS PARK

WATFORD

COVENTRY CRANE HIRE

PROPRIETOR: ALEC-STATHAM LTD.

BRANDON ROAD, BINLEY, COVENTRY
TELEPHONE: WALSGRAVE ON SOWE 3113



Lorry mounted Crane Hire fleet.
Capacity 2 to 25 tons.
Jib lengths to 120 ft.
Fly jibs to 20 ft.
Country wide service.

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

STEEL SHEET PILES FOR SALE.
30 Larssen 1GB, lengths 12ft./20ft.
32 Larssen 2, lengths 10ft./12ft.
160 Larssen 2, lengths 15ft./16ft.
50 Larssen 2, lengths 16ft./20ft.
60 Larssen 2, lengths 20ft./25ft.
350 Larssen 2, lengths 25ft./27ft.
100 Larssen 2, lengths 27ft./30ft.
250 Larssen 2, lengths 34ft./35ft.
200 Larssen 3, lengths 30ft./40ft. (unused).
150 Larssen 4B, lengths 45ft./50ft.
350 Frodingham 1A, lengths 7ft./10ft.
150 Frodingham 1A, lengths 15ft./20ft.
40 Frodingham 2, lengths 20ft./25ft.
65 Frodingham 2, lengths 25ft./32ft. (unused).
60 Frodingham 3, lengths 25ft.
25 Frodingham 4, lengths 37ft./40ft.
Also various Larssen and Frodingham CORNER, BOX and JUNCTION PILES.
DUDLEY VALE, LTD.,
9 Palace Street, London, S.W.1. VICtoria 0252.

FOR IMMEDIATE HIRE.
CRAWLER CRANES:
802 Lima, long and wide tracks, jib up to 100ft. plus 20ft. Fly jib, precision load lowering.
38RB, long and wide tracks, jib up to 100ft.
22RB, wide tracks, 70ft. jib, power load lowering.
ROADS AND RUNWAYS,
Tel.: Abbey 4905 and Bridgend 4163.

WANTED TO PURCHASE.
Late Model N.C.K. 304, in good condition.
One BTD6 ANGLEDOZER and one BTD6 Drott.
Also Rough Drott machines suitable for rebuilding and spares.
Cub Mk. IV EXCAVATOR and two 4½yd. DUMPERS also required.
Write Box P.4954, "The Contract Journal."

IF YOU WANT TO PURCHASE OR HIRE any CONTRACTORS' PLANT, please get in touch with METAL UNION (PLANT), LTD., 75 Victoria Street, London, S.W.1. Telephone: VICtoria 4868/9, 7429, 2177/8.

FOR SALE. 54RB DRAGLINE, 22000 Series, on long and wide tracks.—PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Tel.: Paddington 2663/5.

FOR SALE, 1959 Chaseside Loadmaster 700, with p.a.s., 1 cu. yd. Bucket, lighting equipment, driver's cab, etc. — WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

WANTED NOW.
All the fun (and hard work) of exporting USED PLANT and EQUIPMENT will be enjoyed by us; only the financial gain will be yours.
Urgently needed, OLD (new will not be considered) EXCAVATORS, TRACTORS, CRANES, GRADERS, DERRICKS, COMPRESSORS, American or British Equipment, good condition or bad—Don't sell your surplus at home.
Remember, your competitors have too much plant already.
Write now! Tomorrow the ship may have sailed (literally). Exporting helps you, us and our country.
AXWORTHY AND COMPANY, LTD.
(Drotts for Hire),
Straight Road, Old Windsor.
Telephone: Windsor 3434, 3435, 3384.
Cables: Axworthy, Windsor.

SLOGGETTS PLANT HIRE. — For COMPRESSORS; TRACTORS; DINKUM DIGGERS; DOZERS; CALF-DOZERS; CRANES; ROAD ROLLERS; FLOOR CENTRES; ACROW PROPS; PAINT SPRAYERS; MOBILE SITE OFFICES; PUMPS; HOISTS, 8/15cwt.; ROADFORMS, 5in. to 10in., Light and Heavy Section. All CONTRACTORS' PLANT, long or short HIRE.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

UNICORN WILL BUY OR SELL FOR YOU all Contractors' Plant, Mining, Quarrying, Generating Equipment, etc. Our card index service will produce what you want for a mere handling charge. Complete export service available. — Send your inquiries or details of equipment for disposal to UNICORN PLANT REGISTER, Box, Wilts. Telephone: Bath 88053.

HAVE CASH — WILL TRAVEL. — If you have SURPLUS PLANT but prefer surplus cash—If you wish to sell quickly and without fuss—If you would be satisfied with a reasonable price for an immediate sale—contact with date, conditions and price—NORMAN E. FIELDS, Forest Edge, Ringwood Road, Ferndown (837), Dorset.

NARROW TRENCH BUCKETS to fit all machines. SALE or HIRE. The Norton Backacter Bucket designed by user digs harder material and empties more efficiently. Sizes 1ft. 6in./2ft. 4in. IMMEDIATE DELIVERY. Other sizes within 10 days. Contact NORTON PLANT HIRE, LTD., Ramsden, Billericay, Essex. Telephone: Ramsden Heath 365/6.

FOR SALE.
Caterpillar D4, wide gauge, fitted L.P.C. Blade, £850.
Caterpillar D4, standard gauge and L.P.C. Angledozer, £275.
Caterpillar D4, standard gauge, fitted Hyster Winch, £650.
Caterpillar D2, standard gauge, fitted L.P.C. Equipment, £425.
International TD9 and RB Equipment, £575.
Allis-Chalmers HD14, fitted Winch and Dozer, £750.
Allis-Chalmers HD7, fitted Dozer, £325.
Fordson County, fitted Bray Hydraulic Equipment, £225.
Caterpillar R4, fitted Hyster Winch and Dozer, £715.
Fowler VF, Hydraulic Equipment, £285.
Onions 6yd. SCRAPER, £175.
Case LA TRACTOR, £145.
Priestman Wolf EXCAVATOR, £390.
Holman 2-tool Self-start Diesel COMPRESSOR, £365.
Atlas 2-tool COMPRESSOR, £150.
Hobart 300-Amp. Mobile WELDER, £88.
Tasker Semi-low Articulated MACHINERY TRAILER 5/6-ton, Thornycroft Diesel Unit, £260.
LAND-ROVER, 1954, £140.
Scammell TRACTOR, fitted Gardner 6LW, £178.
ROBIN BOSWORTH,
Tel.: Stoke St. Milboro 237.
Near Ludlow, Shropshire.

FOR SALE from our own stock.—Lima 2400, with 120ft. Dragline Boom, 7yd. Bucket, driven by Caterpillar Diesel D397 Engine. This machine was new in May, 1959, and is one of the latest to come into this country, and has only been worked as a Dragline. Here is a real opportunity for a serious buyer who requires a machine of this size, and is not looking for the cheapest machine, but the best at a fair price.—PLANT SALES, LTD., 25 Castlereagh Street, W.1. Paddington 2663.

WANTED, BTD6 Drott Crawler SHOVEL, suitable to break for spares.
Write Box D.D.760, "The Contract Journal."

GREENS new VIBRATORY ROLLERS, hand and tandems. Immediate delivery.—DIAL-MEC, LTD., Caxton Hill, Hertford. Telephone: Hertford 3175.

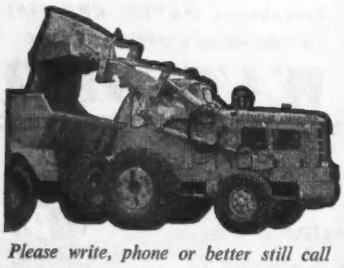
WANTED, Coles CRANES, 15-ton to 20-ton capacity. JAW BONE WORKS, Wood Lane, Rothwell, Yorks. Telephone: Rothwell 3258.

FOR HIRE, Latest American TURFING MACHINES. Write Box P.5162, "The Contract Journal."

USED CHASESIDE LOADMASTERS



BEFORE PURCHASING
a loading shovel
IT WILL PAY YOU
to inspect our guaranteed used LOADMASTERS which have passed through our own workshops, have been brought up to this standard, and are offered at very keen prices.
In addition to Loadmasters we have all makes of Loading Shovels at prices to suit all requirements.



Please write, phone or better still call
CHASESIDE ENGINEERING CO LTD.
USED EQUIPMENT DIVISION,
STATION WORKS, HERTFORD, HERTS.
Tel: Hertford 3113

TAS/UED.85

KINGSTON PLANT
HANWORTH · MIDDX.
FOR **DUMPERS** AND
ALL PLANT HIRE
FELTHAM 4084

WELDERS
1958
300 amp. LINCOLN PORTABLE DIESEL SETS
FOR HIRE
Very Keen Rates—For Long Term Hire
MOORE'S PLANT LIMITED
105-129 MARKFIELD ROAD, N.15
Phone: TOTtenham 0401/8

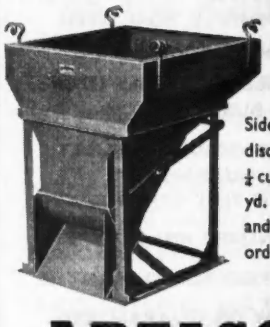
FOR HIRE
ALL BUILDERS' PLANT
Alloy and Steel Scaffold tube, boards, fittings, Acrow props, concrete mixers, etc.
Prompt delivery, competitive prices and terms arranged
M. SANDERS LTD.
18/20 Medlar St., London, S.E.5. ROD 5143

DIESEL · PETROL & STEAM
ROLLERS
FOR HIRE



PHONE: BIDFORD-ON-AVON 3202
BOMFORD & EVERSHED LTD.
SALFORD PRIORS, EVESHAM

CONCRETE POURING SKIPS



Side or bottom discharge from ¼ cu. yd. to 1 cu. yd. Other sizes and types to order.

ABELSON
& CO. (ENGINEERS) LTD.
SHELDON · BIRMINGHAM 26
Phone: SHEldon 2424 (10 lines)
Grams: ABELSON, BIRMINGHAM
ALSO AT LONDON & MANCHESTER

FOR HIRE
COMPRESSORS
60—600 C.F.M.
J. W. COX PLANT HIRE LTD.
QUARRY BANK, BRIERLEY HILL, STAFFS. Phone: CRADLEY 66266

MOORE'S CRANE HIRE
Telephone TOTtenham 0401 (10 lines)
15 cwt, 2 ton, 4 ton mobile. 5 ton, 10 ton, 15 ton lorry mounted

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

J. JOHNSTON AND COMPANY, LTD. OFFER FOR HIRE:
Nash QM 4/6-ton capacity MOBILE CRANES, 24/40ft. jibs, heavy duty tyres.
Jones KL44 MOBILE CRANE, 30/40ft. jib, pneumatics.
Ransler 5-ton, 6-ton and 7½-ton capacity MOBILE CRANES.
Neals G 15cwt. capacity PORTABLE CRANES.
Jules Weitz G15HVA TOWER CRANES.
Drott 1 cu. yd. Tractor SHOVELS.
Ransler ⅜ cu. yd. Crawler-mounted EXCAVATORS, all equipments.
DUMPERS, 15cwt. to 22½cwt. capacity.
COMPRESSORS, 2-tool and 4-tool, portable and lorry-mounted.
CONCRETE MIXERS, 5/3½ to 14/10 cu. ft. capacity.
SWING WEIGHBATCHERS, 14 cu. ft. Double Bucket.
Ransler Centrifugal PUMPS, 2in. and 3in.
Ransler Diaphragm PUMPS, 3in. and 4in.
Stothert and Pitt 6½cwt. Vibrating ROLLERS.
Johnson Poker VIBRATORS, 1½in. to 3½in.
271 Uxbridge Road, London, W.12.
Tel.: Shepherds Bush 6941.

FOR SALE.
2,400 c.f.m. Bellis and Morcom/Bruce Peebles Two-stage AIR COMPRESSOR, 100/115 p.s.i., synchronous motor 6,600/3/50.
1,100 c.f.m. Browett-Lindley/Crompton-Parkinson Two-stage AIR COMPRESSOR, 100 p.s.i., slipring motor 400/3/50.
1,000 c.f.m. Alley and McLellan/English Electric 2-stage AIR COMPRESSOR, 100 p.s.i., slipring motor 440/3/50.
600 c.f.m. Browett-Lindley/L.D.C. Two-stage AIR COMPRESSOR, 100 p.s.i., synchronous motor 440/3/50.
Each complete with unloading equipment and motor control gear.
GEORGE COHEN SONS AND CO., LTD., Wood Lane, London, W.12 (Shepherds Bush 2070); Stanningley, near Leeds (Pudsey 2241).

FOR SALE or HIRE. latest type AIR LOCKS, L.P. COMPRESSORS and MEDICAL LOCK for caisson sinking. — A. E. FARR (PLANT HIRE), LTD., Westbury, Wilts. Tel. 356.

NETHERTON PLANT, LTD.

OFFER THE FOLLOWING PLANT FOR HIRE:
Allen-Parsons Diesel driven TRENCHERS, 12/21 and 16/60, with fully experienced operators.
B.S.P. HAMMERS and EXTRACTORS.
Spencer-Hopwood No. 16 BOILERS.
Jones CRANES, KL22 and KL44.
Electric DERRICKS, 5-ton 110ft., and 7-ton 120ft.
GENERATING SETS, 50-kW to 2-kW.
BARREL HOISTS and WINCHES.
20-ton PORTASILOS.
Diesel driven CONCRETE SAW with skilled operator.
Attractive rates. Special terms for long hire periods.

NETHERTON PLANT, LTD.,
Dunnings Bridge Road, Netherton, Liverpool, 10.

LOADER SALES & HIRE LIMITED

USED EQUIPMENT FOR SALE

1959
Weatherill 2HCRQ, Fordson Diesel Engine. Cab. ⅞ cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works £580

1958
Weatherill 2HCRA, Fordson Diesel Engine, Cab. ⅞ cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works £695

1957
Weatherill 2HCRQ, Fordson Diesel Engine. Cab. ⅞ cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works £750

1957
Bray BL30, Fordson Diesel Engine. All-weather Cab. ¾ cu. yd. Scoop. Good tyres, rears 1400 x 24. Ex works £695

1956
Bray BL30, Fordson Diesel Engine. All-weather Cab. ¾ cu. yd. Scoop. Good tyres all round. Very clean machine. Ex works £595

1956
Bray Crawler Loading Shovel, re-con. engine, idlers, etc. 1 cu. yd. Scoop, 14in. tracks. Cab. Very good condition. Ex works £1,100

1960
Skyhi Ardua, Fordson Power Major Engine. Cab. Power steering. 1½ cu. yd. Scoop. Excellent machine for handling coal or coke. Bargain. Ex works £895

Telephone: Ware 2398

STAR STREET, WARE, HERTS.

D/TA5/LS3

DUDLEY VALE, LTD.
OFFER FOR IMMEDIATE HIRE:
Johnson 1½ cu. yd. Diesel DUMPERS.
Delmag Diesel PILE HAMMERS, D5, D12 and D22.
G17T Delmag PILE FRAME, with Turntable, Diesel Winch.
Zenith PILE EXTRACTORS, Nos. 20 and 80.
McKiernan-Terry PILING HAMMERS, S, 6, 7 and 9B3.
Sykes No. 7¾ and No. 8 Double Drum PILING WINCHES.
STEEL SHEET PILES, Sections 1, 2 and 3, various lengths.
22RB, with Dragline and 70ft. Crane Equipment.
KL44 MOBILE CRANES, Jibs up to 50ft., pneumatics.
Neals NMS 3-ton MOBILE CRANE, with Swan-neck Jib.
Neals NM 2-ton MOBILE CRANES, 30ft./35ft. Jib.
3½-ton Vibro-Verken VIBRATORY ROLLER.
Stotnert and Pitt 72T and 54T VIBRATORY ROLLERS.
C.P.T. Rotary 2-Tool COMPRESSORS, Portable, Diesel.
20-ton PORTASILOS.
Ruston Diesel LOCOMOTIVE, 2ft. gauge, 25/30-h.p.
5-ton Electric DERRICK, with 120ft. Jib and bogies.
10-ton 2-motor Electric DERRICK, with 120ft. Jib and bogies.

DUDLEY VALE, LTD.,
9 Palace Street, London, S.W.1. Tel.: VICtoria 0252.

FOR SALE, 24in. x 18in. Universal Cedar Rapid Portable Primary and Secondary STONE CRUSHING UNIT, powered by Caterpillar D7 Diesel Engines and with Diesel-driven Stockpiling Conveyors. Immediate delivery.—SAVILLE-CALVERT (MACHINERY), LTD., Harvester House, Stratford-upon-Avon, Warwickshire. Telephone 4242.

BUCKET SPECIALISTS. — Special or Standard SHOVEL, TRENCHER, GRAB and DRAGLINE BUCKETS to suit all machines. Quick delivery.—Write or 'phone the makers: NORTONS PLANT HIRE, LTD., Billericay, Essex. Telephone: Ramsden Heath 365.

FOR SALE OR HIRE: Barber-Greene Junior, new 1957, and Barber-Greene Major, new 1959. FRED WATKINS (ENGINEERING), LTD., Coleford, Glos.

PETER CLARK (PLANT), LTD.,
FOR SALE:
5-ton Butters Single-motor DERRICK, 55ft. Jib, on 20ft. Gabards, £1,650.
19RB, 11900 Series, Dragline Equipment, very good condition, £2,400.
19RB, 10000 Series, Dragline Equipment, good working order, £1,700.
28ft. x 8ft. Lancashire BOILERS, as Storage Tanks, £350 each.

PETER CLARK (PLANT), LTD.,
Ham Hill, Snodland, Kent. Tel.: Snodland 331.

PETERBOROUGH MOTORS LIMITED

MAIN JCB DISTRIBUTORS

New J.C.B. 4 EXCAVATOR, 2-lever hydraulic controls £2,840
New COUNTY CD50 ANGLEDOZER ... £2,522
Nov., 1960, J.C.B. EXCAVATOR/LOADER, with ⅞ cu. yd. Loader Bucket, 14 x 30 rear and 900 x 16 front tyres, power-assisted steering, etc. Less than 1,000 hours' work. Bargain price £2,150
1959 J.C.B. HYDRA-DIGGA/COUNTER-WEIGHT, first-class condition, guaranteed £925
CATERPILLAR D4 7J, wide gauge, fitted L.P. Dozer Equipment. Little used. Ex farm machine. Bargain price £525
DINKUM DIGGER, complete with one Bucket, on Fordson 1956 Major Diesel, with Cabin, as new tyres. Ready for work £425
SHAWNEE SCOUT EXCAVATOR on Fordson P6 Tractor. Ready for work £375
STANHAY SHOVELALL COAL LOADER, fitted to reconditioned Fordson Major Diesel Tractor. Full guarantee £695

PETERBOROUGH MOTORS LIMITED
THE FORD PEOPLE
Main Distributors for Fordson, County, J.C.B. Excavators and Loaders, etc., etc.
Tractor Division,
OXNEY ROAD · PETERBOROUGH
Telephone 4228/67007.

HUBERT C. LEACH, LTD., OFFER EX STOCK:
J.C.B. HYDRAULIC EXCAVATORS:
New J.C.B. 4, price £2,780, with choice of full range of equipments.
J.C.B. 4, demonstration model, new Nov., 1960, £2,225.
J.C.B. Hydra-Digga/Loadall, new Nov., 1959, £1,795.
J.C.B. Hydra-Digga/B/Weight, new March, 1959, £995.
J.C.B. Hydra-Digga/B/Weight, new May, 1958, £875.
ROAD ROLLERS:
4-ton Aveling-Barford, Diesel, £650.
6½-ton Greens, Diesel, £850.
10-ton Greens, Diesel, £1,200.
6/8-ton Marshall Tandem, Diesel, £1,650.
HUBERT C. LEACH, LTD.,
High Street, Cheshunt, Herts. Waltham Cross 25161.

FOR SALE.
Bedford-Scammell LOW-LOADER UNIT and Trailer, k/o back-end, 8/10-ton, petrol, good all round, £300.
Caterpillar D4, ex M.O.S., L.P.C. Angledozer. This machine is as new. £950.
J.C.B. Hydra-Digga, Ford, Front Shovel and Blade, fair condition, £750.
Fowler 3B, base machine, good order, £75.
Leyland Diesel LORRY, fitted drop-end low heavy body, £75.
R. H. BODY, Biddisham, near Axbridge, Somerset.

FOR HIRE.—Civil Engineering contractor has 38RB EXCAVATORS for hire; also new 30RB, with Equipments. Reasonable rates for hire for satisfactory period.—R. G. HORTON, LTD., Contractors, Brierley Hill, Staffs. Tel. 77722.

FRODINGHAM STEEL PILING, once driven, 70 lengths x 23ft. 6in., 24 x 16ft. 6in., 16 x 11ft. 6in.—Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADVance 5691-3.

WEIGHBRIDGES for immediate delivery and installation. Good second-hand road or rail machines, completely reconditioned and guaranteed. BERRY AND WARMINGTON, LTD., Byrom Street, Liverpool. London Office—Terminus 5741.

ROAD ROLLERS
FOR HIRE OR SALE
10 CWT. to 10 TONS
with or without drivers
HALTRAC LIMITED
Bourne Works, Walmar Street, S.W.18
PUTney 4185

ARUPS

EALing 4754

CRANE HIRE

EALing 4754

TRACTOR SHOVEL HIRE

EALing 4754



ARUP & ARUP LTD.
14/18 UXBRIDGE RD., LONDON, W.5

CONTRACTORS' PLANT
of all types
FOR SALE OR HIRE

METAL UNION (PLANT) LTD.,
75 VICTORIA STREET, LONDON, S.W.1
Telephone Numbers: VICtoria 4868/9, 7429, 2177/8

MOORE'S PORTASILO

10 to 20 ton.

HIRE Telephone TOTtenham 0401 (10 lines)



MO 171

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

VALES PLANT REGISTER, LTD.
OFFER FOR IMMEDIATE SALE:
MISCELLANEOUS:
SYKES No. 7 Single Drum Diesel WINCH, 3-ton, unused, £595.
LOW-LOADING TRAILERS, 5/6-ton, 6/7-ton, 7/8-ton, 8/10-ton, 10/12-ton and 12/15-ton. Ex Ministry. Also TRAILER-MOUNTED TANKS, 250, 500, 750 and 900 gallons.
ATLAS 2-tool DIESEL PORTABLE COMPRESSORS, Dorman Diesels, on pneumatics, good condition, £225 each.
HOLMAN T25D COMPRESSOR, 1947, pneumatics, £525.
AVELING-BARFORD 8/10-ton Diesel ROLLER, 1958, Perkins Diesel Engine, Scarifier, £2,250.
GREENS 9/11-ton ROLLER, Sprinklers, Cab and Scarifier, 1959, first-class condition, £2,200.
MARSHALL 8/10-ton ROLLER, Perkins P4, Tank and Sprinklers, registered 1947, £1,100.
PARKER, PEGSON and BROADBENT, 16in. x 9/10in. and 16in. x 5in. and 12in. x 7in. PORTABLE DIESEL CRUSHING AND SCREENING PLANT. Price on application.
KENNEDY No. 19 CRUSHER. Details and price on application.
NORDBERG 3ft. SYMONS CONE CRUSHER, £3,650.
ROAD MACHINES BATCHERMATIC, 20-ton Hopper, new 1958, £1,500.
ALLEN 12/21 TRENCHER, Dorman, 1957, £1,100.
MUIR-HILL 3yd. DUMPERS, Perkins Diesels. Several. Price on application.
McKIERNAN-TERRY PILING HAMMER No. 7. Price on application.
APPLEBY-FRODINGHAM No. 3 PILING, 49/50ft. lengths, 100 tons. Price on application.
APPLEBY-FRODINGHAM 1A PILING, approx. 50 tons, 17/18ft. lengths. Price on application.
EUCLID 15-ton REAR DUMPS, Rolls-Royce Engine, 1957. Price on application.
SCAMMELL 8 cu. yd. DUMPERS, 4-wheel drive, Meadows Engine, £2,500.
GALION Type 603 Diesel GRADERS, 1955/56, £950 each.
CATERPILLAR D8 2U TRACTOR, 23000 Series, Hydraulic Bulldozer Equipment, £2,950.
CATERPILLAR D7 17A TRACTORS, Bulldozers. Price on application.
CATERPILLAR D6 9U TRACTORS, Hydraulic Bulldozers, £1,650 each.
WINGET 7THH 10/7 MIXER, 1959/60, Weigher and Feeder, £465.
INTERNATIONAL DROTT SKID-SHOVELS, new 1958, £1,750 each.
DELMAG G15 PILE FRAME, with Double Drum Winch, 1957, £1,500.
REICH E2 BLOCKMAKING MACHINE, unused, £375.
BARBER-GREENE 875 JUNIOR and SENIOR 879A FINISHERS, £1,000 and £1,500 each, respectively.
FOR A COMPREHENSIVE LIST OF PLANT FOR SALE AND HIRE — SEND FOR VALES FREE PLANT REGISTER.
Further details: 14 Lower Grosvenor Place, London, S.W.1. VICtoria 7531, 3501, 8080, 9886 (15 lines).

FOR SALE.
One Series H direct drive Caterpillar TRACTOR, D8, with Hydraulic Bulldozer and Hydraulic Ripper. In very good condition.
One Series H Caterpillar TRACTOR, D8, with Power Shift Transmission and Torque Converter. Complete with Hydraulic Dozer incorporating Tilt Ram and 29 C.C.U. Also in very good condition.
For prices and delivery terms, contact.
INTERNATIONAL MARKETERS (LONDON), LTD., 245 Knightsbridge, S.W.7. Tel.: KENsington 9602/4.

FOR SALE. Ransomes and Rapier 410 EXCAVATOR, fitted with 4-in-1 Equipment and Digging Lock. WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

GAZEWAY PLANT HIRE, LTD.
OFFER FOR SALE:
NEW EQUIPMENT:
$\frac{3}{8}$ cu. yd. Heavy Duty Double Rope GRABS, £235 each.
Millars CONCRETE MIXERS, all models. Price on application.
3.5-ton MOBILE CRANES, Weserwolff, £3,675 each.
Pegson PUMPS and RAMMERS. Price on application.
USED MACHINERY:
10RB EXCAVATOR, Serial No. 18262, 3VRHN Engine, Skimmer, Backacter, £1,250.
10RB EXCAVATOR, 12000 Series, Skimmer, Backacter, £650.
J.C.B. EXCAVATOR, June, 1959, extra Buckets, 65 Loadall Shovel, £1,400.
Drott SKID-SHOVEL, Serial No. 9294, 4-in-1, August, 1959, new tracks, Roller, well maintained, £2,000.
Caterpillar D7 7M 3971SP, rebuilt as new, guaranteed 90 days, ex M.O.S., £2,600.
Chaseside 3yd. DUMPER, with Cab, No. D3F0271, Perkins Diesel, very little used, £475.
8/10-ton Marshall ROLLER, Regn. EU6291, £950.
Pingon P60 TOWER CRANE, 1958, overhauled, £4,250.
Pingon P20 TOWER CRANE, 1959, overhauled, £2,225.
C.P.T. 2-tool Lorry-mounted COMPRESSOR, Austin, Dorman DWD Engine, 110 c.f.m., £125.
6/8-ton Aveling-Barford ROLLER, 1954, TRV model, Fordson 4D Diesel, £850.
Greens 50cwt. Unirol Pedestrian ROLLER, Petrol, £145.
4-ton Aveling-Barford ROLLER, Ruston Diesel Engine, Water Tank and Sprinklers, £425.
21/14 Stothert and Pitt High Discharge MIXER, fitted Electric Weighgear, overhauled, £475.
1 cu. yd. Stothert and Pitt High Discharge MIXER, Lister Diesel, good condition, £385.
Caterpillar D4 2T TRACTOR, Hydraulic Angledozer, P.C.U., in very good order, £850.
6yd. Ruston SCRAPER, very little used, ex M.O.S., £400.
Sykes Self-priming 9in. PUMP, Ruston 4VSH Diesel, Engine No. 265489, Machine Serial 11292, no hoses, £225.
19RB BACK BALANCE WEIGHT, £75.
Road Machines Twin SWING BATCHER, £50.
Benford 18/12 MIXER, with Shovel and Weighgear, 1957, Petter AVA2 Engine, good working condition, £525.
Windmill Lane, Thames Ditton, Surrey.
Tel.: Emberbrook 2800, 2801 and 6147.

PLANT FOR SALE.
Shawnee Poole DUMP TRUCKS, £1,150.
International BTD6 Drott, 9000 Series, 4-in-1 Shovel, £1,800.
Caterpillar D7, Model 7M, Cable Bulldozer and P.C.U., £1,100.
Caterpillar D7, Model 4T, Cable Bulldozer and P.C.U., £1,400.
Caterpillar D8, Model 1H, fitted P.C.U., £650.
International BTD6, Hydraulic Angledozer and P.C.U., Cab, £550.
Caterpillar HT4, 955, No. 6 and 977 SHOVELS, from £2,250.
Caterpillar D8, Model 2U, Cable Angledozer and P.C.U., £850.
Caterpillar D6, Model 5R, Hydraulic Angledozer, £1,500.
Priestman V Cub, Dragline or Backacter, £1,850.
Coles/Austin Lorry-mounted 3-ton CRANE, £950.
J.C.B. Hydra-Digga/Loadall 65, £1,250.
ROBERTSON PLANT, LTD.,
Barkway (Tel. 277), Herts.

WANTED. Petter Pazl AVA1 or AVA2 Air-cooled DIESEL ENGINES; also Lister, any condition or suitable for reconditioning.
Write Box P.5262, "The Contract Journal."

GABRIEL MACHINERY COMPANY, LTD.
FOR SALE:
Euclid 7yd. Motorised SCRAPER, etc.
Euclid S7 MOTORISED SCRAPER, 1957, powered by Leyland AV600 Diesel Engine, 7/9 cu. yd. capacity, manufactured by Euclid (Gt. Britain), Ltd., first-class working order, £3,250.
Ruston-Bucyrus 19RB, 11000 Series, fitted Backacter Equipment, overhauled, £1,550.
Ruston-Bucyrus 10RB, electric start, choice of several, in good working order, any one equipment, from £450.
Smith Super 10 EXCAVATOR, 1954, fitted Skimmer and Backacter Equipment, good working order, £850.
Priestman Cub EXCAVATOR, fitted Skimmer/Backacter Equipment, powered by 2-cyl. McLaren Diesel, £495.
Smith 2/10 EXCAVATOR, Serial No. 12253, powered by Dorman Diesel Engine, fitted Skimmer-Backacter Equipment, £450.
International Drott SKID-SHOVEL, B6K3, 1958, fitted 4-in-1 Bucket, first-class order, £1,850.
International Drott SKID-SHOVEL, B6K3 machine No. 5500, Standard Bucket, 1957, well maintained, £1,575.
International Drott, as above, 1958, £1,675.
International Drott, as above, 1958, can be seen working, £1,350.
Muir-Hill 2WL Mk. 2 Hydraulic LOADING SHOVEL, fitted 1yd. Shaker Bucket. This machine was purchased new late 1960 and has been very little used. £875.
Shawnee Poole 7yd. REAR DUMP, new 1960, used one contract only, choice of several, £1,475.
J.C.B. Hydraulic EXCAVATOR, 1960, complete with four Buckets and Extension Boom, 1,000 hours only, and in first-class condition, £2,100.
Benford 18/12 Reversing Drum Diesel-driven CONCRETE MIXER, fitted Weighbatcher Handscraper and High Discharge Frame, used one contract only, and in first-class condition, £850.
Dinkum Digger Mk. 3, 1957, complete with 18in. and 24in. Excavator Buckets and Whitlock Front Shovel, overhauled, £650.
Weatherill 2HHCR Hitip Hydraulic LOADING SHOVEL, purchased new in 1960, and recently completely overhauled, £1,100.
Palmers Lane, Enfield, Middx. Tel.: Howard 4351/3.

FOR SALE.
MIXER, Millars, 5/3½, P.A.Z. Diesel, £75.
MIXER, Liner, 7/5, Diesel, Hopper, £85.
COMPRESSOR, I.R. 100 c.f.m. Electric, £185.
GRABS, 17/14 and 32/27, etc.
5-ton Morgan, Single Motor, 85ft. Jib, £550.
7-ton Anderson-Grice, Single Motor, 120ft. Jib, 1948, £3,150.
10-ton Butters, Single Motor, 100ft. Jib, £2,300.
CRANE SKIPS, 2½ cu. ft. to 2yd. capacity.
CONCRETE PLACING SKIPS, ¼ to 4 cu. yd. capacities, all types, hand- and air-operated.
PUMPS, Centrifugal, new Goodenough, 1½in. to 6in.
MIXERS, new Maximixams, 3/2 to 7/5.
PIPELAYING WINCHES, Maco, ½-ton to 2-ton.
PIPEDOGS, all sizes and capacities.
ROADFORMS, 6in. to 10in., and Flexibles and Pins.
M.E. ENGINEERING, LTD.,
457 Finchley Road, London, N.W.3.
'Grams: Mengilim, London. Tel.: HAMpstead 7481-2-3.

BRISTOL 22 DOZER, sound condition, Perkins Diesel.
2-ton HYDRACRANE, rebuilt, new engine, chassis, etc.
BERESFORD ATKINSON, LTD.,
Hough House, Moston, Manchester, 10.
COLlyhurst 2991/2.

URGENTLY REQUIRED, SHEET STEEL PILING. In any length and section considered.—Write Box C.C.386, "The Contract Journal."

COMPLETION OF CONTRACT

For disposal, six lorry mounted Mobile Cranes, capacities from 5½ to 10 tons. English rating. £22,500.

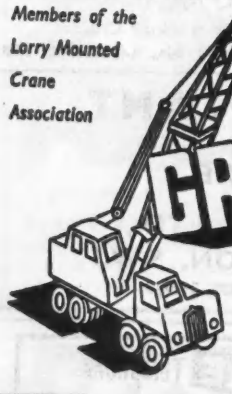
Write Box P5228, "The Contract Journal".

TOKEN FOR PLANT
HIRE YOUR
Excavators, Dozers and Scrapers, Dinkum Major Diggers and Drott Shovels, Trenchers, Dumpers, Rollers, Concrete Mixers, Pumps, Compressors, Rammers, Vibrators, Hoists, Generators, etc.
FROM
TOKEN CONSTRUCTION COMPANY, LIMITED
PLANT DEPOTS
STATION ROAD, THATCHAM, BERKS. Tel: Thatcham 3243/3370.
VALMAR ROAD, CAMBERWELL, S.E.5. Tel: Brixton 5103.

MECHANICAL ROAD SWEEPERS
available
FOR HIRE
on weekly or monthly terms
or
FOR SALE
WALKERS MECHANICAL CLEANSING LIMITED
ROCKINGHAM ROAD, MARKET HARBOROUGH
TEL: 3168

Members of the Lorry Mounted Crane Association

PHONE CENTRAL 5364



GRIFFITHS

★ Country-wide Service
★ All capacities to 25 tons
★ Jib lengths to 120ft.
★ Fly jibs to 30ft.
★ Fleet entirely Lorry Mounted



FOR CRANE HIRE

JOHN GRIFFITHS & SON · LIMITED
★ CRANE HIRE & TRANSPORT DIVISION. 1 · MARYBONE · LIVERPOOL · 3

★*Further Classified Plant Advertisements on pages 777-784*

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

NEAGRON (CONSTRUCTION), LTD. OFFER FOR HIRE:
N.C.K. 304 8-ton CRAWLER CRANE, with 70ft. Boom and Fly Jib.
NEALS QM 4/6-ton capacity MOBILE CRANES, Jibs from 24/60ft., heavy duty pneumatics. With Grabs if required.
NEALS 2-ton MOBILE CRANES, mounted on pneumatic tyres or crawler tracks.
NEALS 15cwt. MOBILE CRANES, 20ft. Lattice Jibs.
JONES KL44 3/4-ton capacity CRAWLER-MOUNTED CRANES, 24ft. Channel to 40ft. Lattice Jibs, with 10ft. Jury Jibs.
COLES and LORAIN 5/25-ton capacity LORRY-MOUNTED CRANES.
LIMA 802 30-ton capacity CRAWLER-MOUNTED CRANE, fitted 80/100ft. Jib, with Back Hitch Gantry.
CONCRETE MIXERS, 5/3½, 7/5, 10/7, 14/10 and 21/14 cu. ft. capacity, Diesel-powered, high or standard discharge, with Integral Weighgear and Hand Scrapers.
DUMPERS, Diesel, ½/4½ cu. yd. capacity.
COMPRESSORS, Lorry-mounted and Portable, with full equipments.
AKT QUEEN Diesel MOBILE HOISTS, 7/10cwt. capacity, rail as required.
EXCAVATORS, 10, 19, 24, 33RBs and N.C.K. 304, with all equipments.
40ft. HANGING LEADERS for 19RB and 22RB Excavators, complete with all necessary fittings.
DROTT and ALLIS-CHALMERS HD5G TRACTO-SHOVELS.
CATERPILLAR and BRISTOL TRACTORS, all sizes.
J.C.B. and DINKUM DIGGERS.
ROLLERS, 6¾cwt., Vibrating, to 10-ton capacity.
SHUTTERING, SCAFFOLDING, PROPS, ROADFORMS, etc.
MONORAIL and C.P.O.A.C. CONCRETE PLACER EQUIPMENT.
BAR BENDERS and CROPPERS, Diesel and Electric drive.
CHINOOK HEATERS, all models available.
WOODS INDUSTRIAL HEATERS—SOLE HIRING AGENTS.
FURTHER DETAILS:
Abbey House, Victoria Street, London, S.W.1.
Telephone: ABBey 5152, Sullivan 7626 (10 lines).

FOR SALE.
Parker 10/7 MIXER, Lister Diesel, Weigh Equipment, engine good condition. Mixer requires attention.
Two GF ½-ton Diesel DUMPERS, good running order.
Warsop BREAKER.
HAND WINCH.
CRANE SKIPS.
300 Acrow PROPS.
POKER VIBRATOR (Petrol).
W. J. RICHARDSON AND SON (BUILDERS), LTD., 30/32 Wycliffe Road, Northampton. Tel. 34084.

REQUIRED, STARTING ENGINE for D4 Caterpillar. State serial number, condition and price. Write Box P.5239, "The Contract Journal."

PLANT FOR SALE.
Two 2-tool MOBILE COMPRESSORS, Atlas-Copco NT9V, with Dorman 4BK11 Engines (electric starting), mounted on Bedford short-wheelbase chassis.
Priestman Tiger Mk. V EXCAVATOR, No. A7449, purchased new in March, 1955, fitted with Dorman 4LA Diesel Engine, with 24in. tracks, 40ft. Dragline Equipment. Fully reconditioned.
One Dorman 4DS CYLINDER HEAD.
Several Parker 5/3½ CONCRETE MIXERS.
SKIMMER BUCKET for Tiger Mk. V Excavator.
Priestman Cub Mk. V EXCAVATOR, No. A8924, purchased new April, 1958, fitted with Dorman 2LB Engine, with 18in. tracks, Backacter Equipment, 2ft. Bucket.
WILSON PLANT HIRE, LTD.,
Weedon Road, Northampton.
Telephone: Northampton 4653 and 4654.

FOR SALE.
Bedford 18/12 CONCRETE MIXER, 6ft. raised discharge.
Winget 10/7 CONCRETE MIXER.
Thwaites-Orion DUMPER.
Caterpillar D7 DOZER, Cable-operated Blade.
2,000ft. 8in. STEEL SCREEDS, with pins.
Five MOBILE SITE OFFICES, easily convertible into caravans.
Thames Trader 7-ton TIPPER.
19RB SKIMMER BUCKET.
TRAILER ROAD SCRAPER.
Further details on application.
BEATON CONSTRUCTION, LTD., Mill Hill 1201.

SURPLUS CONVEYOR BELTS. New, unused and Second-hand. Most widths up to 36in. in stock for immediate delivery. Second-hand Belts supplied on sale or return basis.
G. E. SIMM (MACHINERY), LTD.,
Sheffield: 27 Broomgrove Road (Tel.: 64436).
Glasgow Area: Luggie Bank Road, Kirkintilloch (Tel.: 2468). London: 33 St. George's Drive (Tate 8772).
South Wales: 1F.5 Kingsway Trading Estate, Bridgend (Tel.: 1567).

FOR SALE.
1959 Whitlock Dinkum Major Hydraulic EXCAVATOR and Power Shovel, 24in. Bucket. The whole in sound order. £1,400.
1960 Whitlock Dinkum Major Hydraulic EXCAVATOR and Power Shovel, 24in. Bucket. Really sound order. £1,675.
HOLDSWORTH (YORKS.), LTD.,
10 Park Square, Leeds, 1. Tel.: Leeds 32861.

FOR SALE.—A number of Ransomes-Rapier 3yd. Tilting Drum AGITATORS, mounted on 7-ton Thames Traders, at prices ranging from £1,300 to £1,500 complete.—For further details, write to Box A.A.384, "The Contract Journal."

WANTED, 2½yd. Dragline EXCAVATOR, Electric, 55RB, RR490, or similar.—Offers to METROPOLITAN PLANT EXPORTERS, LTD., 159 Victoria Street, London, S.W.1. Tel.: VICtoria 9615.

SULLIVAN PLANT HIRE CO., LTD., OFFER for SALE:
Caterpillar D2, 5U and 5J Series, fitted Hydraulic Angledozers.
Caterpillar D4, 2T, 7J and 6U Series, fitted Hydraulic Angledozers and P.C.U.s.
Caterpillar D6, 4R and 9U Series, with Dozers and P.C.U.s.
Caterpillar D7, 3T, 4T, 7M and 17A Series, with Dozers and P.C.U.s.
Caterpillar D8, 8R, 2U, 13A, 14A and 22A Series, fitted Dozers and P.C.U.s.
Caterpillar D9, 18A and 19A Series, fitted Dozers and P.C.U.s.
Caterpillar 955E TRAXCAVATOR, Series 12A.
Le Tourneau Model LP 12/13 cu. yd. SCRAPERS.
Le Tourneau Model LS 8 cu. yd. SCRAPERS.
Le Tourneau Super C TOURNAPULLS.
Several Onions 12 and 9 cu. yd. SCRAPERS.
Allis-Chalmers HD5G TRACTO-SHOVELS, Series 4000/11000.
Allis-Chalmers HD20 and HD21 TRACTORS, with Dozers and Winches.
Michigan 175A and 125A Tractor SHOVELS.
10RB EXCAVATORS, 20000 Series, fitted Skimmer/Backacter.
19RB EXCAVATOR, 14000 Series, fitted Standard Dragline Equipment.
Several 22RB EXCAVATORS, choice of equipments.
33RB, 9000 Series, fitted Dragline and Face Shovel.
37RB, 9000 Series, fitted Dragline.
44RB, 19000 Series, fitted Face Shovel.
Benford 18/12 Reversible Drum Diesel CONCRETE MIXER.
Winget EM21 21/14 Raised Discharge CONCRETE MIXER.
Broomwade Rotary WR120 COMPRESSOR.
C.P.T. 500 c.f.m. COMPRESSOR.
Greens 8cwt. Vibrating ROLLER, new 1955.
1960 J.C.B. 4, in excellent condition.
1960 J.C.B. HYDRA-DIGGA/LOADALL 65, very good condition.
Also WINCHES, EQUIPMENTS, etc., for disposal.
SULLIVAN PLANT HIRE CO., LTD.,
4 Denison Road, Feltham, Middlesex.
Tel.: FELtham 4730, 2664, 7722.

PLANT FOR HIRE.
In Warwickshire and adjoining counties.
Delivered and collected with our Low-loader to your site.
One Greens 10-ton ROLLER, with scarifier.
One Greens 4-ton ROLLER.
Two Priestman Wolf EXCAVATORS, with all equipment.
One Priestman Cub EXCAVATOR.
Two Allen 12/21 TRENCHERS.
Two Allen 12/18 TRENCHERS.
Several C.P.T. 2- and 3-Tool AIR COMPRESSORS, complete with hammers.
One 8in. Sykes Self-priming Diesel PUMP, complete with pipes and bends, and capable of pumping 90,000 gallons per hour.
One 6in. DITTO, capable of pumping 60,000 gallons per hour.
Several 3in. Wickham Diaphragm PUMPS and pipes.
Apply: DUNCHURCH PLANT HIRE, LTD.,
London Road, Dunchurch, nr. Rugby Dunchurch 379.

Lyon

MODERN CONTRACTORS' PLANT

Now available for SHORT- or LONG-TERM HIRE. Also Non-Mechanical Plant. All inquiries promptly attended to.

PLANT FOR SALE—SURPLUS TO OUR REQUIREMENTS:

Several DRAYTON 15cwt. DUMPERS.
Several 10/7, 7/5, 5/3½ MIXERS.
10RBs and 19RBs, with any equipment.
ROAD ROLLERS, 2½/5-ton and 6/8-ton.
One 58-kVA GENERATING SET.
Several SITE CABINS and CARAVANS
Diesel RIVER TUGS.
ONIONS DOUBLE DRUM WINCH.
Several D8 TRACTORS and SCRAPERS.

RONALD LYON (PLANT HIRE) LTD.,
Laundry Road, Fulham, London, W.6.
Telephone: Fulham 7868 and 7869.

NEALE, WRIGHT
& COMPANY LTD.
for
CONTRACTORS' PLANT

Thwaites Dumpers
Parker Mixers
Pegson Pumps
A.C.E. Vibrators & Hoists
Stothert & Pitt Rollers
Pegson Rammers & Rippers
Post Hole Borer

NEW & SECONDHAND
PLEASE SEND YOUR ENQUIRIES

H.O.: Coventry Road, Cubbington, Leamington Spa. Tel.: Spa 924 & 925
London: Tel: FINchley 4322

SLOGGETTS PLANT HIRE
COMPRESSORS OF ALL TYPES
2 Burtons Road, Hampton Hill, Middx.
Telephone: Teddington Lock 1138/9

MARSH PLANT JCB
EMSWORTH 2032-2634
HAMPSHIRE MAIN DISTRIBUTORS

1961 J.C.B. 4, 2-lever	£2,250
1960 J.C.B. 4, 3-in-1 Bucket	£1,800
1959 J.C.B. HYDRA-DIGGA/LOADALL 65,	£1,700
1958 J.C.B. HYDRA-DIGGA/LOADALL 65, (Two)	£1,500
Several J.C.B. HYDRA-DIGGA/COUNTER-WEIGHTS, from	£850
J.C.B., Mk. 1, and Buckets	£500
J.C.B. LOADALL 65	£850
1960 MICHIGAN 55A, Leyland, 1400 x 24 tyres	£3,100
1959 DROTT, 4-in-1	£2,350
RANSOMES 410	£650
ACE BOMAG BW75	£550
1959 SYKES UV4	£550
MUIR-HILL 10BD, P6	£300
ACE COMET	£300
JOHNSON 1GP DUMPERS	£150
CHASESIDE 1½yd. DUMPER	£250
1956 LOADMASTER 300	£800

hire it from...
ABELSON
Tel: SHEldon 2424

You can't lose with **DELMAG** *on your* **Pile Driving Contracts**

Telephone: ELGar 6777 (4 lines)
CET
EQUIPMENT LIMITED

GREENHAM
EQUIPMENTS LIMITED

USED CONTRACTORS PLANT FOR SALE

HOISTS

Wickham 10cwt. Static, Ruston 2VTH diesel engine. Repaired and repainted — £145

A.C.E. 20cwt. Skymaster Passenger Hoist, new 1957, 400-440/3/50 motor and control box. Complete with safety gear gates, mesh guards and 468ft. mast. Very good condition — £1,750

B.H.C. 15/20cwt. centre slung. Excellent condition, with reconditioned Petter AVA2 diesel engine — £235

MONO RAIL

A large selection of Power Wagons, Trailers, Straight and Curved Rails, Stands, Points, etc. All in excellent condition, having been checked over, repaired where necessary and repainted. Average price less than 50% of new prices. Prices on application.

PUMPS

Large selection of Petrol and Diesel Pumps from 2in. to 6in. Prices from — £20

TRACTORS AND SHOVELS

Bristol 25 Angledozer, new 1957, Perkins P3 Diesel. Good condition — £525

Fowler VF Angledozer, Diesel, Bray Equipment. Good working order — £225

Bristol Duplex Overloader, April, 1960, Perkins P3 Diesel. Many repairs recently. Repainted — £1,000

International BTD6 Angledozer, new 1957. Very good machine. Repaired where necessary and repainted — £1,425

International BTD20 Dozer, new 1959. Works reconditioned — £4,950

Chaseside 700 Loading Shovel, new 1957. Ford Diesel. Excellent order. Repainted — £925

J.C.B. Hydra-Digga, with Loadall Front End Equipment, new 1959, c/w 24in. Digging Bucket and Ditching Bucket. Excellent condition throughout — £1,650

Sherman Trencher, mounted Bray HL23 Loading Shovel, and complete with 12in./18in. and 24in. Digging Buckets. Demonstration machine — £1,900

EXCAVATORS

Priestman Wolf ¾ cu. yd. Excavator, new 1951, Dorman Diesel Engine, Skimmer / Backacter Equipment — £950

Ruston 3W Excavator, 10800 Series, Ruston Diesel Engine, 90ft. Dragline Jib and 3yd. Bucket. Lying Scotland — £4,750

Lima 2400 Excavator, new Dec., 1954, Caterpillar Diesel Engine, 120ft. Dragline Jib. Lying Scotland — £20,000

Lima 2400 Excavator Spares. Large quantity. Lying London

Quantity of **Ruston** 19RB Spares. List on application.

BATCHING PLANT

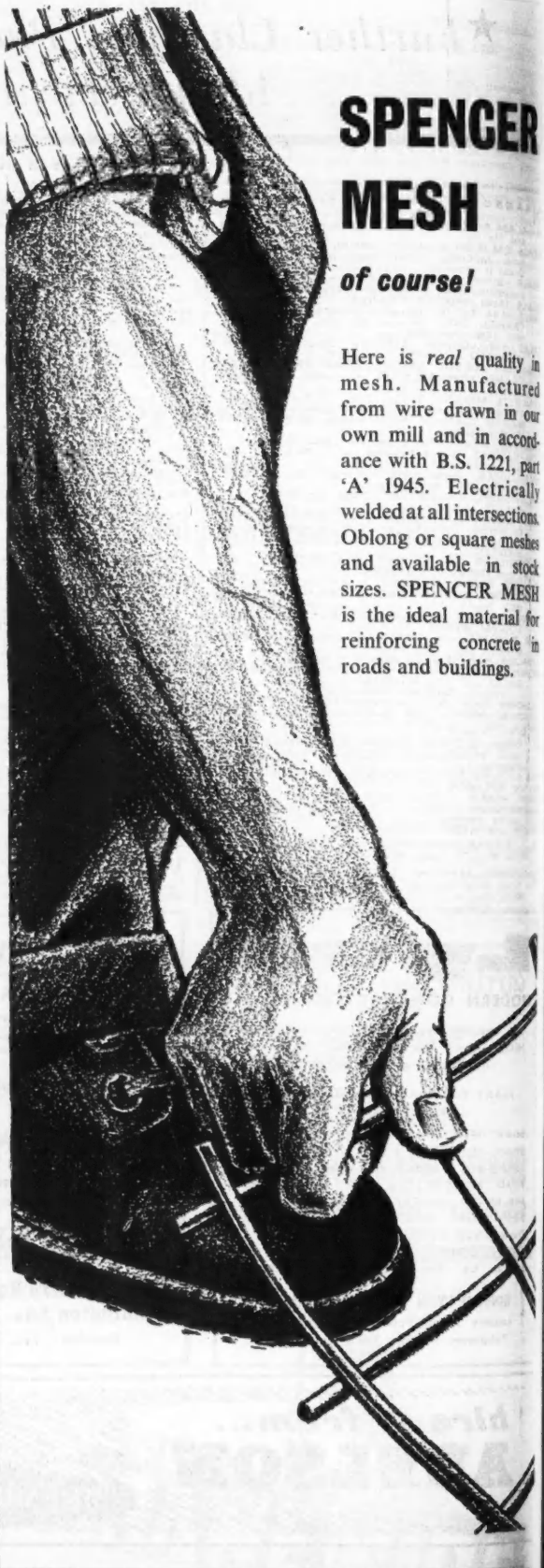
10-ton **Portasilo.** Excellent condition, having been repaired and repainted — £275

P11 **Portasilo,** 1960, 11 tons capacity, with pullwey. New body. Repainted — £350

30-ton **Portasilo,** complete with pullwey. Excellent condition — £395

CLAYTON ROAD, RUISLIP ROAD, GREENFORD, MIDDLESEX

Let's ring VIKING 3651



SPENCER MESH
of course!

Here is *real* quality in mesh. Manufactured from wire drawn in our own mill and in accordance with B.S. 1221, part 'A' 1945. Electrically welded at all intersections. Oblong or square meshes and available in stock sizes. SPENCER MESH is the ideal material for reinforcing concrete in roads and buildings.

SPENCER WIRE, WAKEFIELD

telephone WAKEFIELD 6111

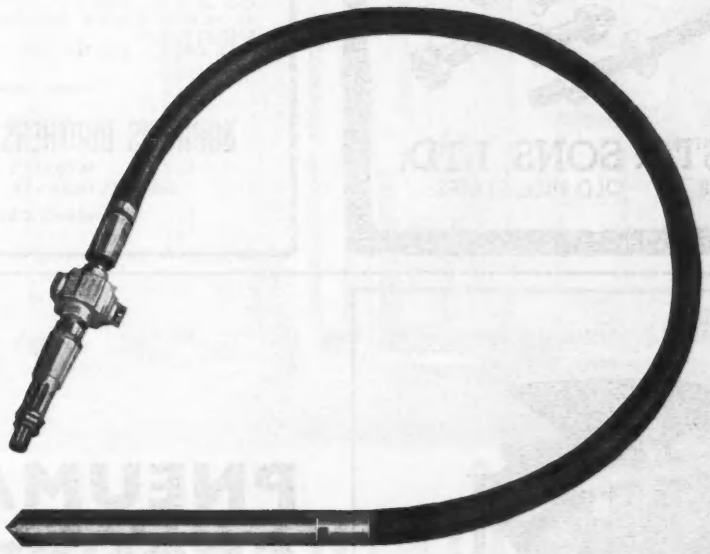
DsW7126[C]

COMPACTORS ENGINEERING LTD.

LOCKFIELD AVENUE, BRIMSDOWN, ENFIELD, MIDDX. TELEPHONE: HOWARD 4063-5

AIR VIBRATORS

FOR SALE AND FOR HIRE



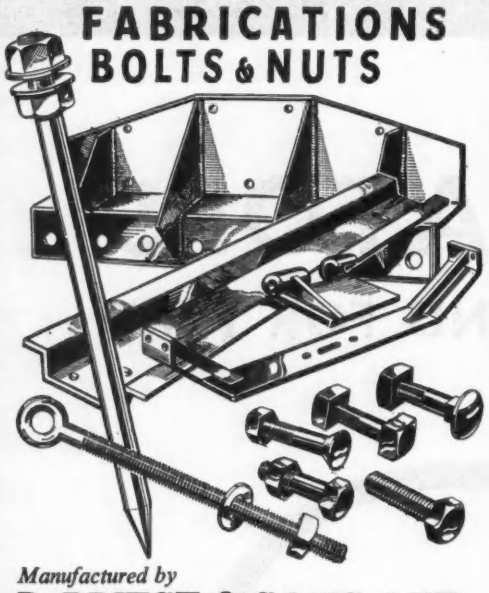
The Model A.15 Air Vibrator (as illustrated) has a diameter of 1½", it weighs barely 5 lbs. and its air consumption is only 20 cu. ft. The frequency of this Vibrator is very high and the high frequency is combined with a large amplitude resulting in a "punch" and effectiveness of vibration which rapidly compacts even the driest concrete. We supply Air Vibrators of many types and sizes varying from 1" to 5" in diameter. Air Vibrators offer great advantages; their first costs are low, they are easy to handle and simple to maintain. If you wish to compare and judge for yourself we shall be pleased to demonstrate any of our models on your site without obligation.

COMPACTORS ENGINEERING LTD.

LOCKFIELD AVENUE, BRIMSDOWN, ENFIELD, MIDDX. TELEPHONE: HOWARD 4063-5

SPECIFY— BP —FOR QUALITY

PRESSINGS
FABRICATIONS
BOLTS & NUTS



Manufactured by
B. PRIEST & SONS, LTD.
P.O. BOX 18 OLD HILL, STAFFS.

OFFERS

OFFERS are invited for the WHOLE, PORTIONS, or ITEMS of PLANT listed below. This plant must be cleared as quickly as possible.

One 10RB EXCAVATOR, with Backacter Equipment, 16000 Series.
One 10RB EXCAVATOR, with Dragline, 14000 Series.
One BACKACTER EQUIPMENT for 10RB.
One SKIMMING EQUIPMENT.
One 14/10 WINGET MIXER, with Weighbatcher and Power Shovel, Diesel.
One 5/3½ MIXER, Petrol.
Two 10/7 WINGET MIXERS, Diesel.
One AIR COMPRESSOR, compressor equipment includes Heavy and Light Breakers, Tools, Hose, etc.
One BLAW KNOX SUPERSILO, 15 tons.
6,000 lin. ft. SCAFFOLD TUBE.
200 COUPLINGS.
One CIRCULAR SAW, Petrol.
Two 15cwt. DUMPERS, Serial Nos. 211847 and 207619.
One PELAPONE POWER RAMMER.
One JOHNSONS POKER VIBRATOR.
One BENDING MACHINE, M.S. Bars.
One CROPPING MACHINE.
One GENERATOR for traffic lights.
One Set TRAFFIC LIGHTS, including Batteries.
300 12ft. STEEL TRENCH SHEETS.
200 8ft. STEEL TRENCH SHEETS.
400 STEEL TRENCH STRUTS.
One 4in. D/D WICKHAM SUCTION PUMP, Hoses.
Two 3in. S/D WICKHAM SUCTION PUMPS, Hoses.
One 30cwt. WINCH and SHEARLEGS.
One 6in. POWER SANDING DISC.
One 30 x 15 TIMBER STORE SHED.
One 20 x 10 TIMBER STORE SHED.
One 20 x 10 OFFICE.
40 ACROW PROPS, extending to 10ft.
SHUTTERING.
SITE OFFICE FURNITURE.

BURROWS BROTHERS (Contractors) LTD.
WOLSLEY HOUSE,
108 SALTERGATE, CHESTERFIELD.
Telephone: Chesterfield 7130



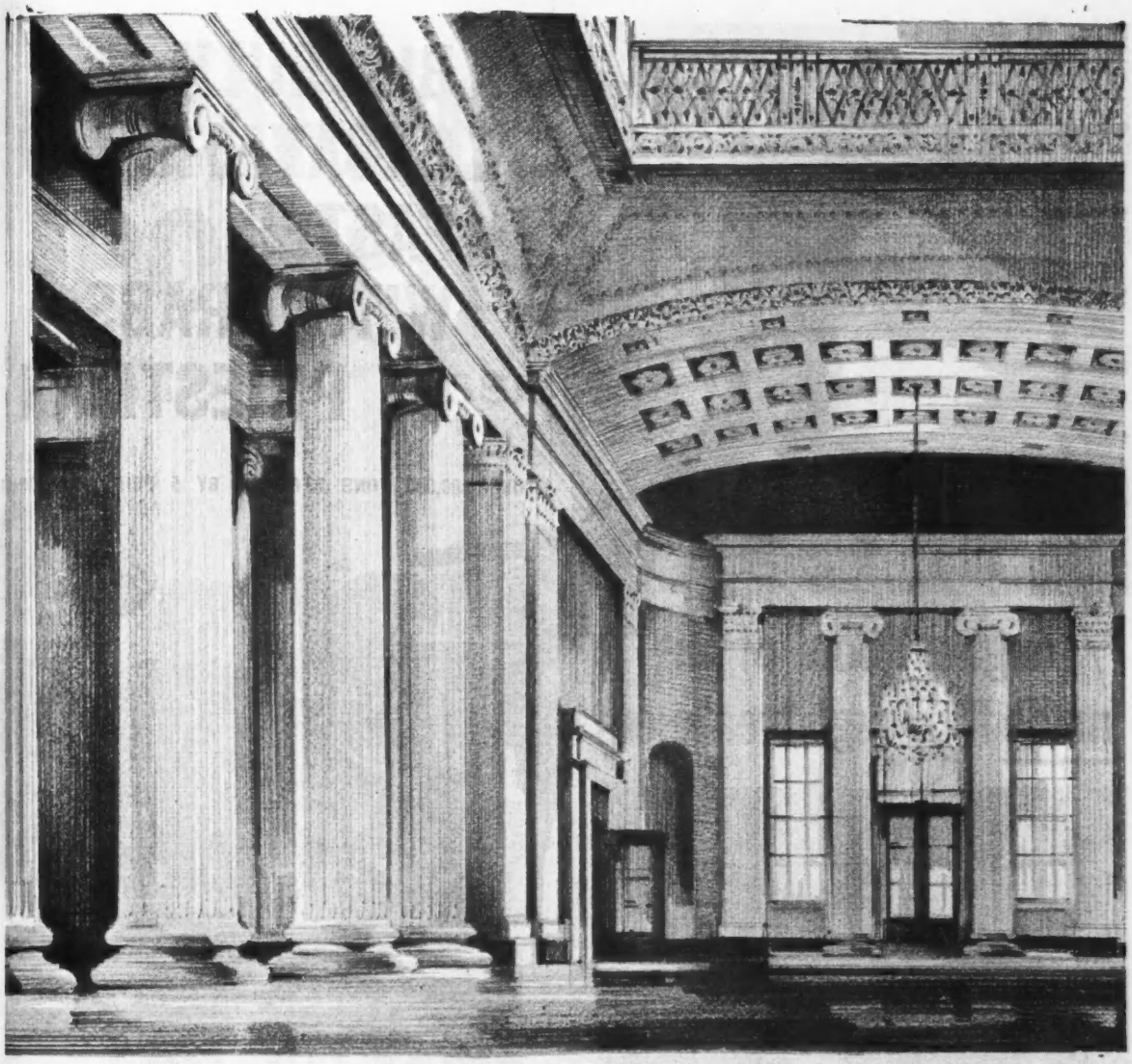
PNEUMATIC GROUTER

This Machine is ideal equipment for placing low to medium pressure grout in tunnels, mines, etc., raising road and floor slabs, consolidating bridge piers general foundations, rock fills and the stabilisation of railway embankments, etc.

MANUFACTURED BY

BOULDER EQUIPMENT LIMITED

18 HIGH STREET, BARNET, HERTS. TEL BARNET 4141



WALPAMUR QUALITY PAINTS

do a wonderful job . . .

Beautiful colours . . . perfection of finish . . . for all types of decoration . . . Walpamur Quality Paints do a wonderful job. Constant testing, both laboratory and practical, maintains the superlative quality which has won international acclaim for these famous paints.



Walpamur Quality Paints—the standard by which others are judged—all undergo laboratory and practical tests. The range provides Paints, Enamels and Varnishes for every possible need and includes:

WALPAMUR WATER PAINT. In a range of 42 intermixable colours. Economical flat finish for walls and ceilings. Exterior Quality available in selected shades.

DURADIO 5-YEAR ENAMEL PAINT. In a range of 46 intermixable colours. High gloss, hard-wearing inside and out. Easily applied. Especially formulated to last five years—and more!

DARWEN SATIN FINISH. In a range of 27 intermixable colours. Satin sheen for any interior surface. Steamproof and washable. Darwen Flat Finish also available.

WALPAMUR EMULSION PAINT. In a range of 29 colours all intermixable. Easy-to-apply matt finish for inside and outside use. Quick-drying odourless and washable.

For further details of these and other Walpamur products write to The Walpamur Company Ltd. Darwen, Lancs.

THE WALPAMUR CO LTD · DARWEN & LONDON

Paints, Enamels and Varnishes for every possible need

BY APPOINTMENT
TO HER MAJESTY THE QUEEN
MANUFACTURERS OF PAINT
THE WALPAMUR CO LTD
DARWEN, LANCS

W108



Toughest boot of all— made for rough treatment



DUNLOP BULLDOZER BOOT—really heavy-duty seamless rubber boot for building work, with Resifort sole. Light and flexible. Available with hob nails and digging plates if required. Also at home on the building site: *Workmaster*, sizes 5-11, **45/9d**; *Target*, sizes 6-12, **33/6d**; *Lumber*, sizes 5-12, **32/-** or **35/6d.**

You get MORE LIFE out of

DUNLOP

FOOTWEAR

DUNLOP FOOTWEAR LTD., WALTON, LIVERPOOL 9

BIG BULK EXCAVATION FASTER WITH GRABS BY PRIESTMAN

OVER 80,000 TONS REMOVED BY 5 PRIESTMAN GRABS



Any operation which involves the movement of loose material from one place to another is better handled by a Priestman Grab (of which there are over 3,000 types and sizes). Pictured above, Priestman Grabs played a vital part in London's big road modernisation plan, in the construction of the Hanger Lane Underpass.

During earthmoving operations, excavation down to 45 ft. between shoring timbers had to be carried out, for which Contractor A. E. FARR LTD. used five Priestman Narrow Heavyweight Grabs. 80 per cent of the total 110,000 tons of muck involved was swiftly and economically handled in this way. Photograph taken by the 'Middlesex County Times'.

INVEST—IN THE BEST—

PRIESTMAN

PRIESTMAN BROTHERS LIMITED, HEDON ROAD, HULL, ENGLAND.
'Phone: HULL 75111 · Telex: HULL 52120 · Telegrams: 'PRIESTMAN, HULL'
Parts, Sales and Service Depots at: HULL, LONDON BIRMINGHAM and GLASGOW

BCA

COMPRESSED AIR POWER for Contractors

at the LOWEST POSSIBLE COST



BROOMWADE V.500

Here is the Compressor that Contractors have always wanted—an easily transportable skid-mounted set, weighing approximately 5 tons, complete with radiator cooling.
On large contracts, where a 50 or 60 cycle electric supply is available, this specially designed Compressor, type V500, provides
AIR POWER AT THE LOWEST POSSIBLE COST.
The 90 degree 'V' arrangement of the cylinders gives perfect running balance with an absolute minimum of vibration.
A highly sensitive regulator operates within ± 1 lb. per sq. in. and constantly maintains full working pressure under all variations of load.
For economy and efficiency this is the finest of its kind now on offer.
The capacity of the V500 is 525 c.f.m. of free air at 100 p.s.i.
The 'V' range comprises compressors with outputs from 350—1,000 cu. ft. of free air delivered per minute at the normal working pressure of 100 p.s.i.

Write for full details.

"BROOMWADE"

AIR COMPRESSORS & PNEUMATIC TOOLS—YOUR BEST INVESTMENT

Broom & Wade Ltd., P.O. Box No. 7, High Wycombe, Bucks. Tel: High Wycombe 1630 (10 lines) Telex: 83-127

958 SAS

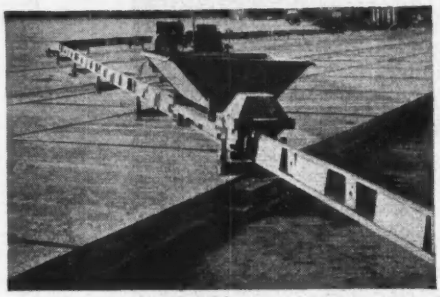
ROADMAC TEMPO INCREASES

ARE NOW IN A POSITION TO APPOINT NEW AGENTS IN THE TERRITORIES SHOWN



MONO-RAIL A ROADMAC PRODUCT
North & South Wales; West Country; East Midlands

ROADMAC LOADADUMP } West Country; North & South Wales; East Midlands
ROADMAC DUMPERS } Northern Counties



ROAD MACHINES (DRAYTON) LTD

Details from :
ROAD MACHINES (DRAYTON) LTD.
WEST DRAYTON MIDDLESEX
Telephone : West Drayton 3721



THE NEW ARPS TRENCH DEVIL

FOR SALE OR HIRE

Trench widths up to 12″
Max. depth 5′ 6″

ALSO AVAILABLE FOR HIRE

ROLLERS from 30 cwt. to 10 tons.
VIBRATING ROLLERS
J.C.B. 4s
DROTTS 4-1 EQUIPMENTS
PRIESTMAN WOLF EXCAVATORS B/A Sk.
MOBILE COMPRESSORS
ALLIS-CHALMERS H.D.6.G. with RIPPERS

ANY OTHER MACHINES AVAILABLE TO ORDER



Write or telephone for further details to:

AUTHORISED DEALERS FOR ALL MODELS

K.L.E. (PLANT HIRE) LTD.

KERN HOUSE, BREAKSPEAR ROAD, RUISLIP, MIDDLESEX. TELEPHONE: RUISLIP 4066/7/8

BY FAR THE BEST method of piping concrete



The PLACY pipes concrete . . .
over 1,000 ft. horizontally!
over 300 ft. vertically!
at a speed of 8-10 ft. per second!

The PLACY concrete placer system is simple in construction and operation, utilizing every man-hour on the job. Compressed air forces each batch through the pipeline in the form of billets. This revolutionary method of conveying concrete has many great advantages.

- *One man operation.*
- *No working parts to maintain.*
- *Only **fresh** concrete delivered with the PLACY method.*
- *Allows workmen to deal with concrete before next batch arrives.*
- *Will handle more grades of concrete than any other machine.*
- *Pipes cleaned in a matter of seconds.*

MULTI-POINT CONCRETE PLACING WITH ONE PLACY UNIT

Any number of pipelines can be set to various sections of the job and linked up in turn for batch feeding.

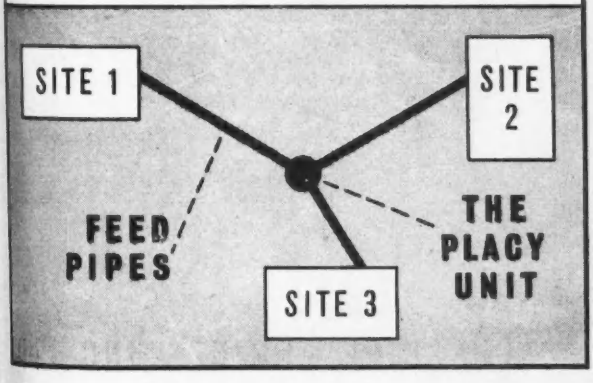
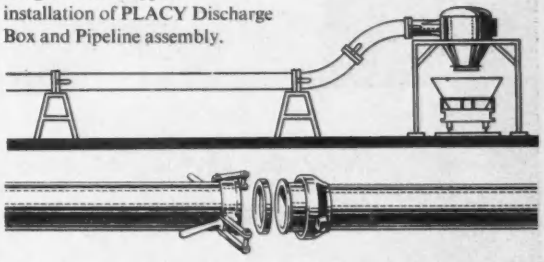


Diagram shows typical installation of PLACY Discharge Box and Pipeline assembly.



Transport piping, showing the Rapid-Action coupling which can be connected or disconnected in a matter of seconds.

Many thousands are working throughout the world.

C.P.O.A.C.

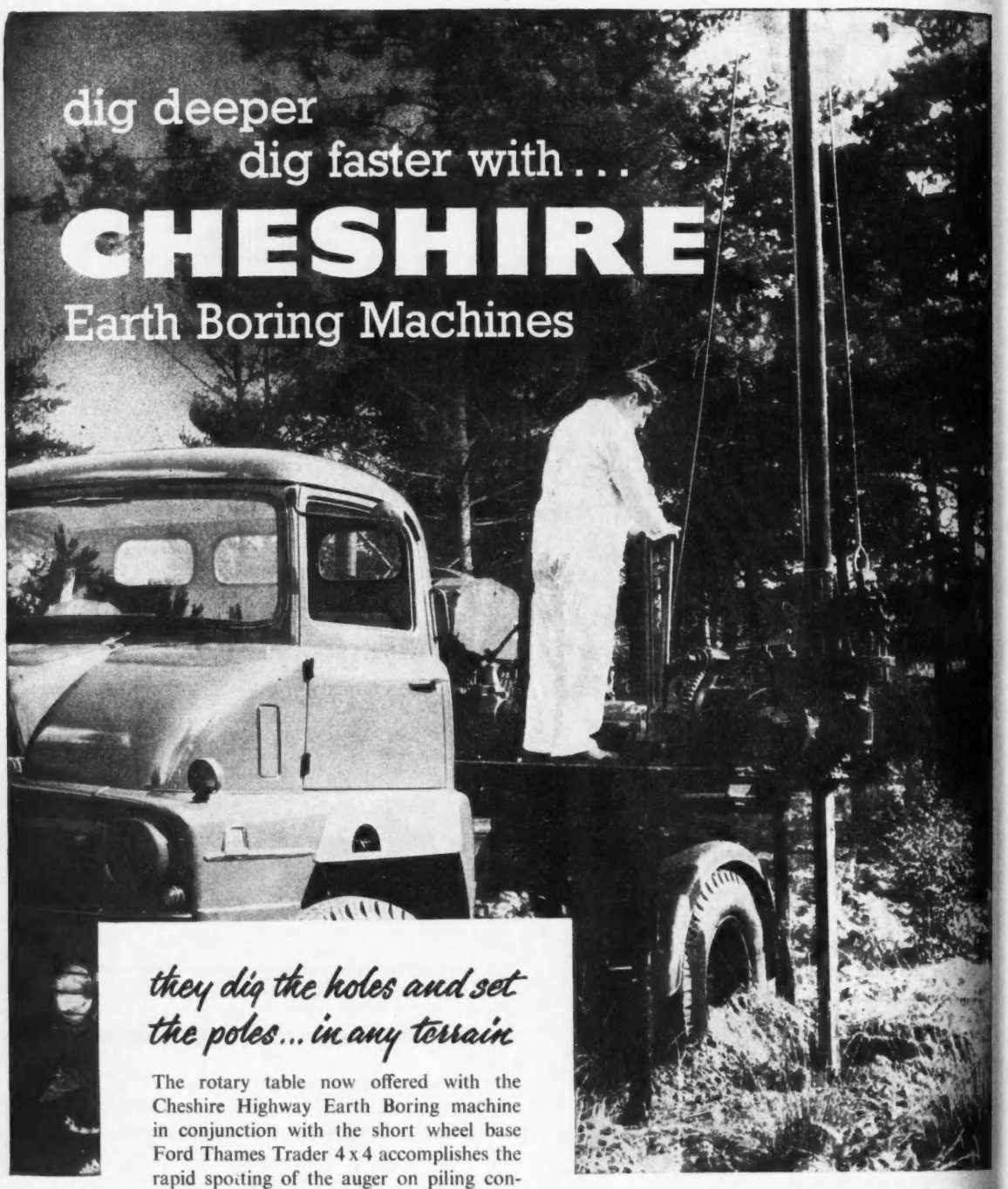
PLACY

PNEUMATIC CONCRETE PLACERS

For further information contact:

MACHINERY (CONTINENTAL) LTD

42 PARK STREET · LONDON W.1 · TEL: HYDE PARK 1401 (4 lines)



they dig the holes and set the poles . . . in any terrain

The rotary table now offered with the Cheshire Highway Earth Boring machine in conjunction with the short wheel base Ford Thames Trader 4 x 4 accomplishes the rapid spotting of the auger on piling construction, thereby minimising the vehicle manoeuvres.

The installation shown was recently purchased by the General Post Office and is equipped with a rotary table and power hoist for erecting telegraph poles. This installation enables holes to be bored and poles set along roadways without the necessity of shunting the vehicle across busy highways.

Write for full details to:

CHESHIRE ENGINEERING LTD

Yorktown Works, P.O. Box No. 3
Camberley, Surrey
Telephone: Camberley 3421

COMPRESSORS

COMPRESSORS

COMPRESSORS

COMPRESSORS

for Hire

also
GULLICK
Hydraulic Concrete Bursters



- *Mobile*
- *Portable*
- *Stationary*
- *Diesel and Electric*
- *18 to 630 cu. ft. f.a.d.*

CONTACT US FOR SERVICE

CONTRACTORS SERVICES LTD

65 EFFRA RD. LONDON S.W.2 Tel: *BRIXTON 7766* (7 Lines)

CS. 36

MUD-ability

Shawnee Poole

will maintain production in MUD

Even in the worst weather conditions, rugged, mobile, Shawnee Poole Rear Dump Haulers maintain high production . . . their unique 110° of turn cuts cycle time and eliminates expensive site preparation. The Shawnee Poole System saves you up to 50% in total operating costs, and increases production too.

Ask for a Job Survey on your site.

The Shawnee Poole system is manufactured under British and Foreign patents granted and pending.



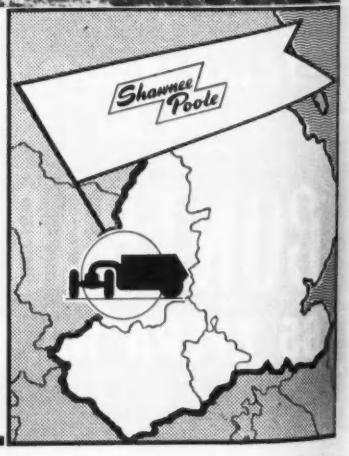
F. MITCHELL (NOTTM) LTD

DERBY ROAD, LENTON, NOTTINGHAM

Telephone: NOTTINGHAM 77701

Your Dealer in:

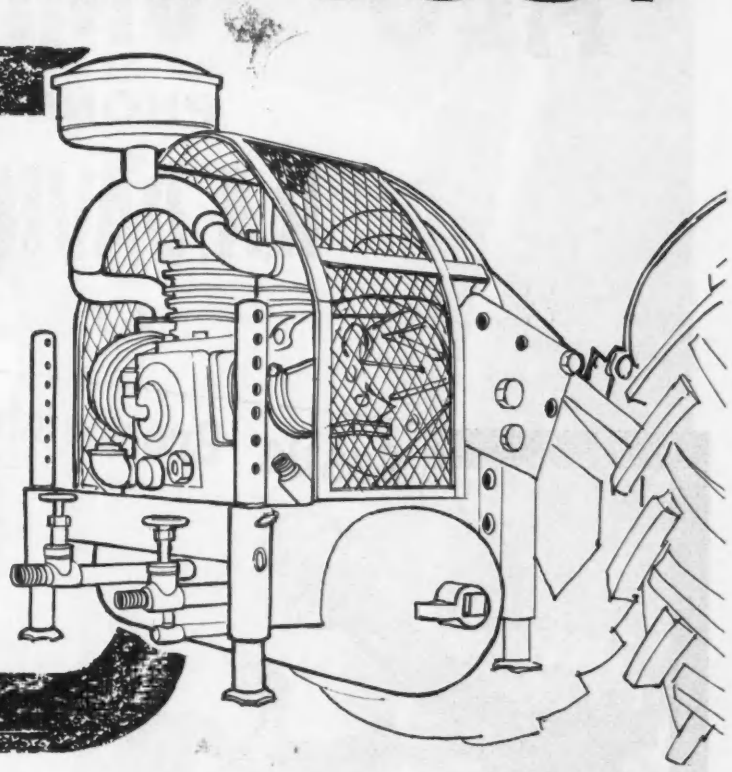
Nottinghamshire, Leicestershire, Lincolnshire, Rutland



MORE AIR AT LESS COST

HYDOR

TRACTOR MOUNTED AIR COMPRESSOR



CAN BE MOUNTED ON TO ANY PRODUCTION WHEELED TRACTOR

✳

145 cu. ft. FREE AIR @ 100 p.s.i.
£450 ex works

132 cu. ft. FREE AIR @ 100 p.s.i.
£395 ex works

SOLE U.K. DISTRIBUTOR

Contact
Abelson & Co. (Engineers) Ltd.
for further details and name of your local dealer

ABELSON
& CO. (ENGINEERS) LTD

SHELDON · BIRMINGHAM 26
TELEPHONE: SHELDON 2424 (10 LINES)
LONDON: 7 SOUTH SIDE · CLAPHAM COMMON · LONDON SW4
TELEPHONE: MACAULAY 3407 (3 LINES)
MANCHESTER: TRAFFORD BAR · MANCHESTER 16
TELEPHONE: TRAFFORD BAR 2536

TO HIRE

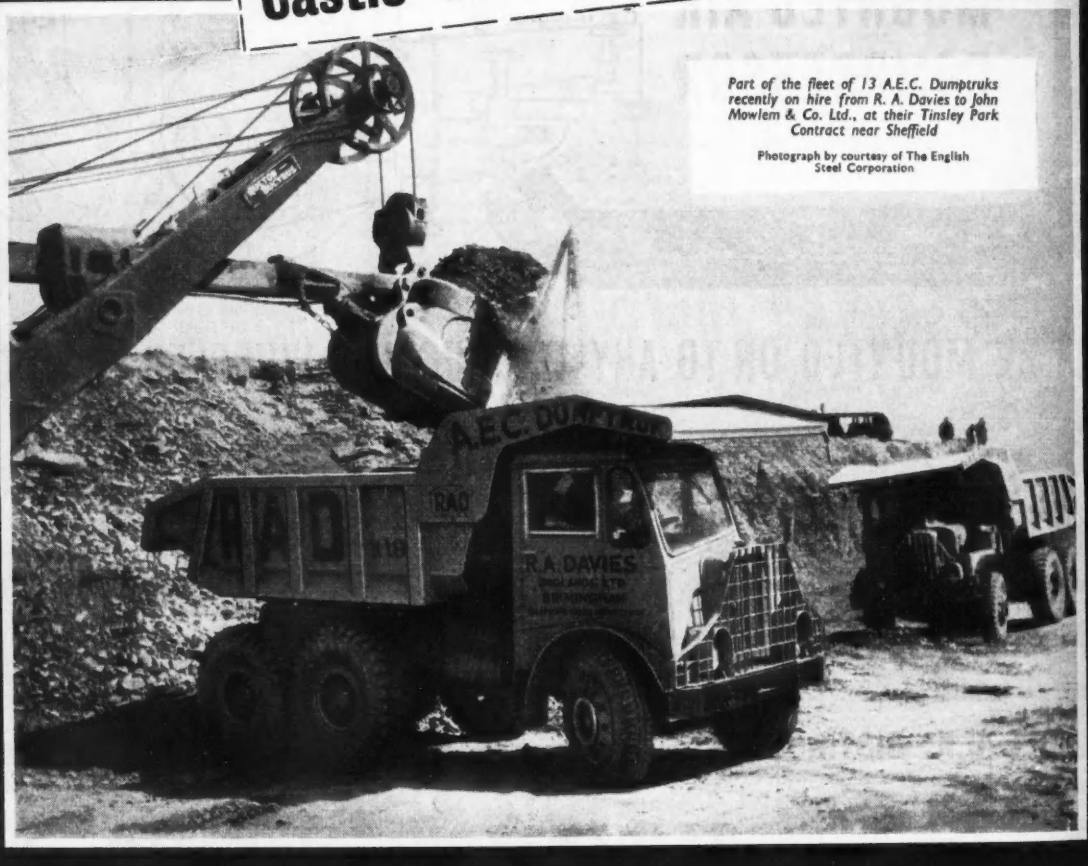
A.E.C. 10 CU. YD. DUMPTRUKS

PHONE

R.A. DAVIES

AT

Castle Bromwich 3721



Part of the fleet of 13 A.E.C. Dumptruks recently on hire from R. A. Davies to John Mowlem & Co. Ltd., at their Tinsley Park Contract near Sheffield

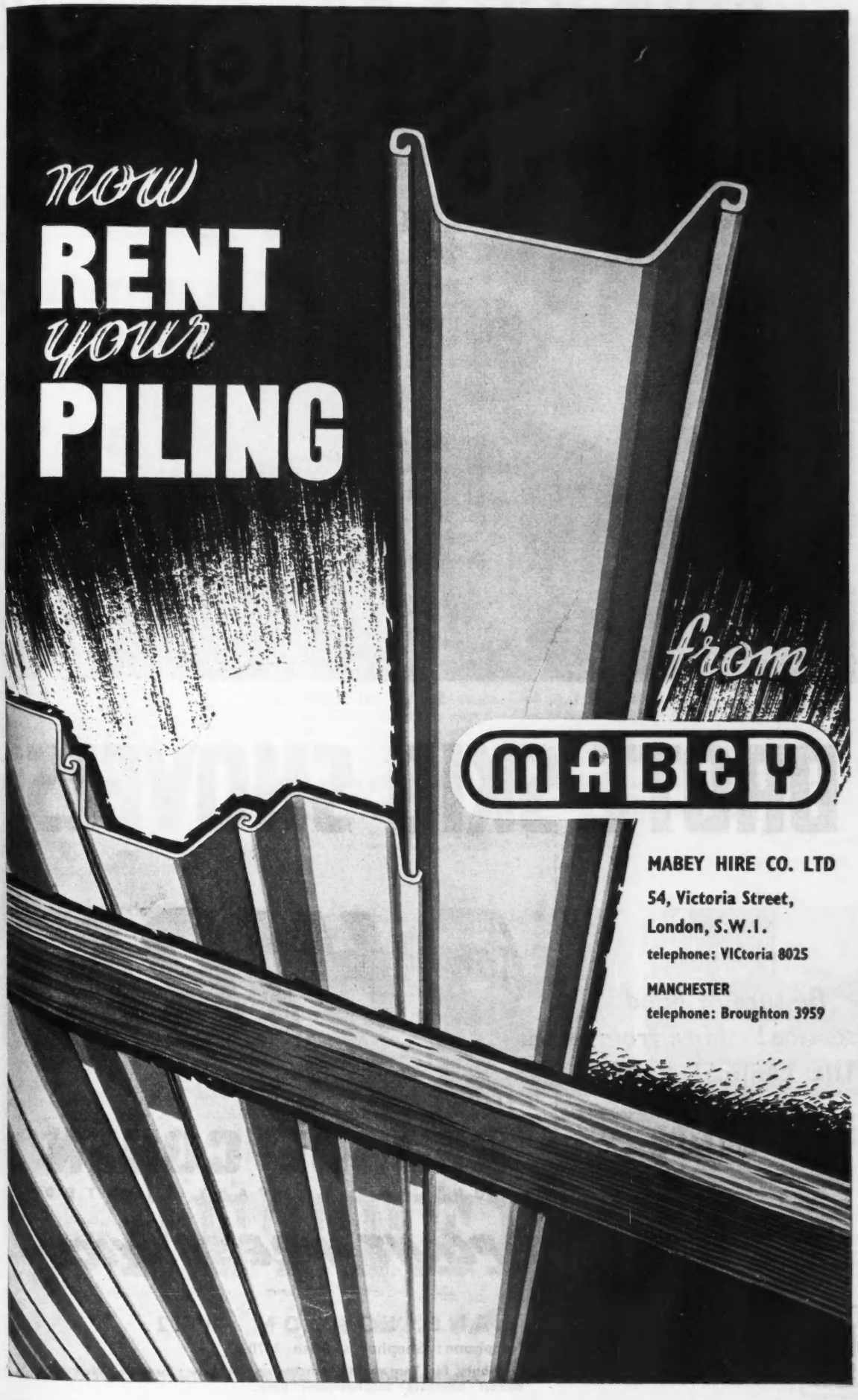
Photograph by courtesy of The English Steel Corporation

Also available on hire :

EXCAVATORS : 10 RB, 19 RB, 22 RB
ALLEN PARSONS 16 / 60 TRENCHER
J. C. B. MK. IV HYDRA DIGGER
MOBILE CRANES : COLES 5 TON
COLES 10 TON

TRACTORS AND SCRAPERS :
CATERPILLAR D4 CATERPILLAR D6
CATERPILLAR D7 CATERPILLAR D8
CATERPILLAR 933 TRAXCAVATOR
CATERPILLAR 955 TRAXCAVATOR

R. A. DAVIES (MIDLANDS) LTD. & PARTNERS · 102 HARTSHILL ROAD · BIRMINGHAM 34


now
RENT
your
PILING
from
MABEY
MABEY HIRE CO. LTD
54, Victoria Street,
London, S.W.1.
telephone: VICtoria 8025
MANCHESTER
telephone: Broughton 3959

Daj71261C



DROTT SKID SHOVELS

Be sure of good service! Hire from
THE LARGEST PLANT HIRE FLEET IN BRITAIN!

for **HIRE**

from

GEORGE COHEN
SONS AND COMPANY LIMITED

PLANT HIRE SERVICE

THE 600 GROUP OF COMPANIES

WOOD LANE, LONDON, W.12.
Telephone: Shepherds Bush 2070
And at Stanningley, Nr. Leeds · Kingsbury, Nr. Tamworth · Manchester · Glasgow · Swansea · Newcastle
Belfast · Sheffield · Southampton · Bath.

ON A BIG JOB LIKE THIS...

IT'S

(yes, you've guessed)

PETTER

helping to speed the work on this vast new ICI development



A 1½ yd. dumper, powered by the Petter AVA2 twin cylinder air cooled diesel engine, one of many being used by contractors on the new chemical plant site at ICI's Severnside Works.



This 1½ kVA Generating set used by contractors to supply power for electric drills at Severnside, is powered by the Petter PAZ1 air cooled diesel engine.

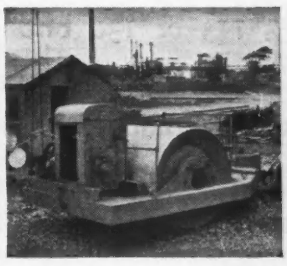
SEVERNSIDE WORKS, South Gloucestershire! On this site rise great new plants for the increasing production of ICI chemicals, a project which will, it is proposed, cover 1000 acres when fully developed. Many tons of contractors equipment is and will be needed. Petter helps power the equipment. Petter's unique spares and maintenance service will also be on call!

THE "TOOLS" FOR THE JOB—Contractors want the "tools" on site—the work on schedule. They rely largely upon a variety of powerful equipment. Hundreds of men on the job want power—to switch on at will. *Unseen power.* Power that they won't have to bother about except that it is immediately to hand. Power that needs the minimum of supervision. Power for the whole range of contractors equipment.

PETTER ON-THE-SPOT, AS USUAL—Petter helps supply the power for mixers, dumpers, vibrator rollers, generators and pumps. Petter are relied upon not merely because of their efficiency and economy on the job but because *PETTERS extensively organised spares and maintenance service, with specially equipped vans manned by experienced engineers, is always on call. IT'S SECOND TO NONE!*



Powered by a Petter PH1 air cooled diesel engine, this dumper gets on with the job. Petter-powered equipment also includes pumps and other plant.



Vibrating roller powered by Petter AV2 water cooled diesel engine, in use by contractors at the new Severnside plant.



Cement Mixer (Petter AVA2 twin cylinder air cooled diesel), dumper (PH1 single cylinder air cooled diesel) operating at the new plant.

A member of Hawker Siddeley Industries

PETTER

Air cooled units from 1½ to 108 bhp: also water cooled units from 3 to 46 bhp.

—it goes much better powered by Petter

PETTERS LIMITED · STAINES · MIDDLESEX · TEL: STAINES 51333

CM/PT/17

Wakefields Keep Busy



Here are some of their uses

Wakefield with snowplough attachment

When you have a Wakefield you can always keep it busy. The Wakefield can do all routine grading work (with precision), it can slope banks, dig ditches, and with optional extras it can bulldoze, scarify and snowplough. In winter the snowplough attachment can prove invaluable; the grader's power and stability make it highly suitable for this job.
A busy piece of equipment is profitable, so why don't you get busy with a Wakefield?



Below, Wakefield 120 Motor Grader bank cutting. The blade can be adjusted to any angle up to 90° on either side of the machine.



Standard Features

- 90, 100, 105, 115 or 130 bhp diesel engine.
- Fully hydraulic operation, with finger-tip control.
- Chain or gear tandem drive.
- Heavy duty constant mesh transmission.
- Power-assisted steering.

WAKEFIELD motor graders

CONSTRUCTION MACHINERY LIMITED, WAKEFIELD, YORKSHIRE

Wf 6086

CONTRACTS

FLINTSHIRE COUNTY COUNCIL.

COUNTY SURVEYOR'S DEPARTMENT.

TENDERS are invited for the SUPPLY of the MATERIALS and SERVICES listed below during the year ending March 31st, 1963:—

Tender No.
(1) Rolled Asphalt (Hot Process).
(2) Heating and Planing.
(3) Tarmacadam, Bitumen Macadam and Cold Asphalt.
(4) Tar and Bitumen for Surface Dressing.
(5) Mist Sprav Process.
(6) Bitumen Emulsion.
(7) Surface Dressing—Specialised Forms.
(10) Roadstone for Surface Dressing and General Purposes, Building Stone and Rock Granular Sub-base and Filling Material.
(11) Gravels for Surface Dressing and General Purposes, Sand and Gravel Granular Sub-base and Filling Material.
(12) Concrete—Plant and Truck Mixed.
(13) Ashes.
(17) Bricks, Cement and Earthenware Pipes.
(18) Precast Concrete Pipes, Kerbs and other Units.
(19) Manhole Covers, Gully Covers and Frames.
(20) Fencing, Gates, Quicks and Grass Seed.
(24) Plastic White Line.
(25) Reflecting Roadstuds.
(26) Traffic Signs and Bollards.
(30) Salt.
(31) Weedkiller.
(32) Surface Dressing Additives.
(33) Paint—Ready Mixed and Road Line.
(34) Coal and Solid Smokeless Fuel.
(38) Servicing Vehicles.
(39) Fuels, Oils, Industrial Gases, including Butane, etc.
(40) Vehicle and Plant Spares, including Electrical Spares and Batteries.
(41) Workshop and Garage Supplies, including Nuts, Bolts, Rivets, etc.
(42) Tyres and Inner Tubes.
(43) Hire of Road Construction Plant, including Haulage Vehicles.
(47) Timber.
(48) Iron and Steel.
(52) Tools, Hardware, Protective Clothing and Shelters.
(53) Brushes.
(57) Drawing Office Equipment and Supplies.
(58) Testing and Analysis of Road Construction Materials.

Forms of Tender may be obtained on application to the County Surveyor, E. W. W. RICHARDS, Esq., A.M.I.C.E., A.M.I.Struct.E., A.M.I.Mun.E., Llwynegrin, Mold.

Applications should state clearly the items in the above list for which tender documents are required, and Tenders should be delivered to the undersigned not later than Noon on 15th JANUARY, 1962.

W. HUGH JONES,
Clerk of the County Council.

County Buildings,
Mold.

BOROUGH OF GOSPORT.

PRIVATE STREET WORKS—CONTRACT NO. 4.

TENDERS are invited for the MAKING-UP of EIGHT PRIVATE STREETS within the Borough, involving the Replacement of Broken Kerbs; the Laying of approx. 750 lin. yd. of 6in. dia. Pipes in Gully Connections and Sewer Extensions; the Construction of 12 Manholes and 38 Road Gullies, and the Laying of 12,000 sq. yd. of Hot Rolled Asphalt Road Surfacing and 6,800 sq. yd. of Asphalt Footways, together with appurtenant works.

Tender documents are obtainable from the Borough Engineer, The Hall, Trinity Green, Gosport, upon deposit of Two Guineas, returnable on receipt of a bona-fide Tender not subsequently withdrawn, and the return of all documents.

Tender Forms should be submitted to me, in the small endorsed envelope provided, and should bear no mark indicating the sender. The priced Bills of Quantities should at the same time be submitted to me, in the large endorsed envelope provided, and should bear the name of the tenderer. Both envelopes must reach my Office not later than First Post on THURSDAY, 28th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

EDWARD ADDENBROOKE,
Town Clerk.

Town Hall,
Gosport.

CITY OF SALFORD.

PROPOSED 120 (16-STOREY) FLATS, NEW CHURCH SITE, BURY NEW ROAD, SALFORD, 7.

FIRM-PRICE TENDERS are invited for the CONSTRUCTION of 120 FLATS in one 16-storey block together with 15 lock-up Garages, Services, Roads, Paths and Landscaping at NEW CHURCH SITE, Bury New Road, Salford, 7.

Conditions of Contract and Drawings may be inspected at, and Bills of Quantities and Form of Firm-Price Tender obtained from, the City Engineer and Surveyor's Department, Town Hall, Salford, 3, on payment of a deposit of £5 5s., which will be returned on submission of a bona-fide Firm-Price Tender not subsequently withdrawn.

Firm-Price Tenders, on the prescribed form, sealed in the envelope provided and bearing no other mark of identification, must be forwarded to the undersigned so as to be received not later than 10 a.m. on MONDAY, 8th January, 1962.

The Council does not bind itself to accept the lowest or any Firm-Price Tender.

R. RIBBLESDALE THORNTON,
Town Clerk.

CITY OF SALFORD.

PROPOSED ALTERATIONS AND EXTENSIONS TO SEEDLEY COUNTY PRIMARY SCHOOL, LIVERPOOL STREET, SALFORD, 6.

FIRM-PRICE TENDERS are invited for the ALTERATIONS AND EXTENSIONS to SEEDLEY COUNTY PRIMARY SCHOOL, Liverpool Street, Salford, 6.

Conditions of Contract and Drawings may be inspected at, and Bills of Quantities and Form of Firm-Price Tender obtained from, the City Engineer and Surveyor's Department, Town Hall, Salford, 3, on payment of a deposit of £3 3s. which will be returned on submission of a bona-fide Firm-Price Tender not subsequently withdrawn.

Firm-Price Tenders, on the prescribed form, sealed in the envelope provided and bearing no other mark of identification, must be forwarded to the undersigned so as to be received not later than 10 a.m. on WEDNESDAY, 3rd January, 1962.

The Council does not bind itself to accept the lowest or any Firm-Price Tender.

R. RIBBLESDALE THORNTON,
Town Clerk.

CONTRACTS

LINDSEY COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

HORNCASTLE LOUTH ROAD, A.153—SCAMBLESBY DIVERSION.

SITE CLEARANCE, EARTHWORKS AND DRAINAGE CONTRACT, AND FENCING CONTRACT.

TENDERS are invited for the FOLLOWING CONTRACTS:

(1) Site Clearance and Surface Water Drainage Works, approx. 14,600 cu. yd. of Earthworks. Total length of improvement: ¾ mile.
(2) Supply and Erection of:
(a) 1,400yd. of Lincolnshire Fencing.
(b) 720yd. of Pressure Creosoted Wooden Fencing.
(c) 78yd. of Open Pale Fencing.
(d) 77yd. of Post and Barbed Wire Fencing.
(e) New Gates, Repair and Set Back existing Gates.

Forms of Tender for either or both Contracts obtainable from the COUNTY SURVEYOR, County Offices, Lincoln.

Tenders to be submitted not later than the 18th DECEMBER, 1961.

LINDSEY COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS and HIRE of PLANT during the 12 months commencing 1st April, 1962:

Supply of:
(1) Coated Macadam.
(2) Broken Stone and Slag; Chippings, Gravel and Sand.
(3) Refined Tar.
(4) Cold Bitumen Emulsion.
(5) Portland Cement.
(6) Concrete Kerbs, Channels and Flags.
(7) Stoneware, Concrete and Concrete Porous Pipes.
(8) Tools, Implements, etc.

Hire of Plant:
(9) Steam and Diesel Rollers.
(10) Surface Dressing (application only).

Forms of Tender, with Specifications and Conditions, may be obtained on receipt of a stamped addressed brief envelope. Applicants should state for which items they desire to tender.

Tenders to be delivered, not later than 8th JANUARY, 1962, to COUNTY SURVEYOR, County Offices, Lincoln.

CAMBRIDGESHIRE COUNTY COUNCIL.

(RE-ADVERTISEMENT.)

LONDON-NORWICH TRUNK ROAD, A.11.

IMPROVEMENT AT JUNCTION WITH ROUTE A.505.

CONTRACT C.6117.

TENDERS are invited for the CONSTRUCTION of approx. 11,000 sq. yd. of NEW ROAD and WIDENING of EXISTING ROAD, comprising approx. 5,000 cu. yd. of Fill, 2,000 lin. yd. Kerbing, Asphalt Base, Base Course and Wearing Course, Drainage, and ancillary works.

Documents in respect of the work may be obtained from the County Surveyor, R. LACEY, M.I.C.E., at the address given below.

Tenders, in the official envelope, must reach the undersigned not later than 12 Noon, MONDAY, 18th December, 1961.

CHARLES PHYTHIAN,
Clerk of the Council.

Shire Hall,
Castle Hill,
Cambridge.

BOROUGH OF EALING.

RENEWAL OF ELECTRICAL INSTALLATIONS AT SELBORNE PRIMARY AND SECONDARY SCHOOL, CONWAY CRESCENT, GREENFORD, MIDDLESEX.

TENDERS are invited from approved N.I.C.E.C. contractors for the ABOVE-MENTIONED WORK. Specification and Tenders from the Borough Engineer, Town Hall, Ealing, W.5, on receipt of deposit of £1, returnable on receipt of a bona-fide Tender.

Closing date, 27th DECEMBER, 1961.

E. J. COPE-BROWN,
Town Clerk.

THURROCK URBAN DISTRICT COUNCIL.

ANNUAL CONTRACTS.

The Council invite TENDERS for the SUPPLY and DELIVERY of the UNDERMENTIONED GOODS, MATERIALS and SERVICES for the year 1st April 1962, to 31st March, 1963:

Schedule No. — Description.
(1) Stores and Ironmongery.
(2) Car Crossings in Concrete.
(3) Tarmacadam.
(4) (a) Hot Compounds for Tarspraying; (b) Cold Bitumen Emulsion.
(5) Ballast, Sand and Shingle.
(6) Lime and Cement.
(7) Stoneware Pipes and Fittings.
(8) Granite Chippings.
(9) Precast Concrete Kerb and Slabs.
(10) Fine Cold Asphalt.
(11) Chestnut Fencing.
(11a) Chain Link Fencing.
(12) Window Cleansing.
(13) Coal and Coke.
(14) Reinstatement of Asphalt Carriageways and Footways.
(15) Kerbing and Paving Work.
(16) Plastic White Line Marking.
(17) Giant and Car Tyres, etc.
(18) Petrol, Diesel, Gas Oil and Paraffin.
(19) Sealing Expansion Joints in Concrete Roads.
(20) Disposal of Ferrous Scrap.

Schedule and Forms of Tender and Conditions of Contract may be obtained from the Engineer and Surveyor, Council Offices, Grays. Index number of Schedules required should be quoted in the application, and the priced Schedule Forms should bear the tenderer's name.

Tenders, in the official envelope provided, bearing no indication of the sender's identity, should be delivered to the undersigned not later than SATURDAY, 30th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

A. E. POOLE,
Clerk of the Council.

Council Offices,
Whitehall Lane,
Grays, Essex.
22nd November, 1961.

CONTRACTS

BOROUGH OF DROITWICH.

UNION LANE IMPROVEMENT.

The DROITWICH TOWN COUNCIL invite TENDERS for the CONSTRUCTION of NEW CARRIAGEWAY and Footpaths in connection with this Scheme.

The works consist of approx. 2,100 super. yd. of Carriageway, with Footpaths, Earth Removal, and appurtenant works.

Contractors desirous of tendering should submit their names to the Borough Engineer and Surveyor, Town Hall, Droitwich, not later than MONDAY, 11th December, 1961, together with a deposit of Two Guineas, which sum will be refunded upon the receipt of a bona-fide Tender and the return of all documents. Bills of Quantities and Form of Tender, which will state the closing date for submission of Tenders, will be forwarded to applicants shortly after 11th December.

The Council do not bind themselves to accept the lowest or any Tender.

S. G. FOSTER,
Town Clerk.

Town Hall,
Droitwich.
24th November, 1961.

BOROUGH OF HARROW.

SCHOOLS MAINTENANCE.

LIST OF PAINTING CONTRACTORS.

Applications are invited from painting contractors who wish to TENDER in the period commencing January, 1962, for WORKS in the FOLLOWING CATEGORIES:

(a) Internal Decoration of Schools (primarily during Easter and Summer vacation periods).
(b) External Decoration of Schools (May to September).

The Contracts will vary from £200-£10,000, and applicants must state the categories in which they are interested, and the total value of work which they can be held to complete under contract within the period stated.

The Council reserves the right to reject without reason any application in any category.

Applications, stating category of work (a) or (b), must be received by me not later than Noon on FRIDAY, 15th December, 1961. Applications should be accompanied by full particulars of similar works recently carried out. Details of labour resources must also be given.

Applicants are asked to confirm, in writing, that in tendering they will not follow the restrictive practices criticised by the Monopolies Commission.

Tenders will be invited from contractors whose names are placed on lists prepared from the applications received, such lists being reviewable at the discretion of the Council.

DAVID PRITCHARD,
Town Clerk.

Town Clerk's Office,
Harrow Weald Lodge,
92 Uxbridge Road,
Harrow.

BOROUGH OF HARROW.

ANNUAL CONTRACTS, 1962-63.

TENDERS are invited for the SUPPLY and DELIVERY of MATERIALS and for the EXECUTION of WORKS as indicated below during the year ending 31st March, 1963:—

Schedule No. — Description
(1) Igneous Rock Chippings.
(2) Tarred Slag, Granite and Limestone.
(3) Sand, Shingle, Gravel, Hoggin and Ashes.
(5) Concrete Flags, Kerbs and Edging.
(6) Tar, Tar Bitumen Mixture and Cut-back Bitumen applied by Pressure Sprayer.
(7) Road Castings.
(8) Concrete Pipes and Fittings.
(9) Bitumen Macadam and Fine Cold Asphalt.
(10) Petrol and Oils.
(11A) Bitumen Macadam and Cold Asphalt Supplied and Laid by Machine and Preparatory Works.
(11B) Hot Rolled and Mastic Asphalt Supplied and Laid by Machine, including Preparatory Works and Reinstatement of Trenches.
(12) Reinstatement of Kerbing and Paving (Labour only).
(13) Repair and Construction of Sewers.
(14) Repair and Maintenance and Minor Improvements of Highways.

Forms of Tender are obtainable from Borough Engineer and Surveyor, 48 Uxbridge Road, Stanmore, Middlesex. Applicants should indicate Schedule Number for which forms required, and enclose a stamped addressed foolscap envelope.

Completed Tenders must be returned to me by 10 a.m. on TUESDAY, 2nd January, 1962, in plain sealed envelopes, bearing no names or marks indicating the sender, and endorsed "Tender for Annual Contracts."

The Council does not bind itself to accept the lowest or any Tender.

DAVID PRITCHARD,
Town Clerk.

Council Offices,
Harrow Weald Lodge,
Uxbridge Road,
Harrow, Middlesex.

THE URBAN DISTRICT COUNCIL OF SEVENOAKS.

TENDERS FOR SUPPLIES.

The Urban District Council of Sevenoaks invite TENDERS for the UNDERMENTIONED SUPPLIES during the year ending 31st MARCH, 1963:

Slag Tarmacadam and Slag Dust.
Bituminous Macadam (with Crushed Rock or Slage Aggregate).
Tarmacadam other than Slag Tarmacadam.
Fine Cold Asphalt and Coarse Cold Asphalt.
Refined Tar.
Cement.
Sand.
Crushed and Natural Shingle for Surface Dressing.
Granite Chippings.
Granite Concrete Kerb (Hydraulically Pressed).
Granite Concrete Paving Slabs (Hydraulically Pressed).
Lorry Hire.
Salt for Snow Clearing Purposes.

Forms of Tender may be obtained from the Engineer and Surveyor, Council Offices, Argyle Road, Sevenoaks, Kent.

Sealed Tenders, endorsed "Annual Tenders," are to be delivered to the undersigned not later than 12 Noon on MONDAY, 8th January, 1962.

The Council does not bind itself to accept the lowest or any Tender.

A. F. E. DAVIS,
Clerk of the Council.

Council Offices,
Argyle Road,
Sevenoaks, Kent.
November, 1961.

CONTRACTS

BRECONSHIRE COUNTY COUNCIL.

TENDERS.

TENDERS are to be invited from approved contractors enrolled with the National Inspection Council for Electrical Installation Contracting, for the purpose of placing a Sub-Contract under a General Contractor for the ELECTRICAL INSTALLATION at the FIVE STREAM COMPREHENSIVE MIXED SCHOOL, Brynmawr. The floor area of the School is approx. 64,500 sq. ft. and comprises the following accommodation: 22 General Classrooms, 8 Laboratories, Engineering, Woodwork and Metalwork Rooms, Drawing Office, 1 Assembly Dining Room, 2 Gymnasiums, Kitchen Area, 1 Stage Music Room, 2 Art and Craft Rooms, 2 Housecraft Rooms, Library, Boilerhouse, Division Room, Staff Rooms, Changing Rooms, Cloakrooms, Entrance Hall and Corridors, etc.

All electrical contractors desirous of tendering for the Sub-Contract are invited to submit their names and particulars to the County Architect, Rhyd Offices, Brecon, by 15th DECEMBER, 1961, together with a deposit of Two Guineas. Cheques should be made payable to Breconshire County Council.

The County Council does not bind itself to accept the lowest or any Tender.

C. M. S. WELLS,
Clerk of the County Council.

County Hall,
Brecon.

BANSTEAD URBAN DISTRICT COUNCIL.

ANNUAL TENDERS, 1962/63.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS and EXECUTION of WORKS for the year ending 31st March, 1963, viz.:

Schedule No.	Description.
(1)	Asphalt, Tarmacadam and Surfacing Materials: Supply, also Supply and Lay.
(2)	Distilled Tar and Bituminus Emulsion.
(3)	Ready Mixed Concrete.
(4)	Shingle, Ballast and Grit.
(5)	Concrete Kerbs, Channels, Quadrants and Artificial Stone Paving.
(6)	Petrol, Diesel, Gas and Light Fuel Oils.
(7)	Granite and Limestone Chippings.
(8)	Ashes.
(9)	Coke.
(10)	Cleaning Surface Water Soakaways.
(11)	Cutting Grass Verges.

Forms of Tender, Conditions and Specifications can be obtained on application to H. CARMICHAEL, M.I.Mun.E., L.R.I.B.A., Engineer and Surveyor, and completed Tenders are to be delivered to the undersigned, in the plain sealed envelopes provided, endorsed "Annual Tenders," not later than MONDAY, 8th January, 1962.

The Council do not bind themselves necessarily to accept the lowest or any Tender, and reserve the right to accept any Tender in whole or in part.

F. L. SHAW,
Clerk to the Council.

Council House,
Brighton Road,
Banstead, Surrey.
24th November, 1961.

STOCKSBRIDGE URBAN DISTRICT COUNCIL.

SEWERAGE AND SEWAGE DISPOSAL WORKS EXTENSIONS.

CONTRACT NO. 2.

The Council invite TENDERS on a Fixed-price Basis from experienced public works contractors, for the CONSTRUCTION of approx. 1,350 lin. yd. of 27in. to 12in. dia. SPUN CONCRETE PIPE SEWERS, 1,150 lin. yd. of 24in. to 15in. dia. SPUN-IRON PIPE SEWERS, Concrete Tube Manholes, Brick Chambers and a Sewage Pumping Station with 80 lin. yd. of 4in. dia. Rising Main, together with Sewage Disposal Works comprising Detritus Tanks and Recording Channels, Settling and Stormwater Tanks, Bacterial Filters, Humus Tanks, Sludge Drying Beds, Sludge Pumping Station, Recirculated Effluent Pumping Station, Mess Room and Store, and other incidental works, at Stocksbridge.

The Contract will be subject to the I.C.E. Conditions of Contract, and copies of the Specification, Bills of Quantities, Drawings and Form of Tender may be obtained from the Engineers, MESSRS. WILLCOX, RAIKES AND MARSHALL, 33 Great Charles Street, Birmingham, 3, on and after 9th December, 1961, on payment to them of deposit of 15 Guineas (by cheque made payable to the Council) which will be refunded on receipt of a bona-fide Tender, supported by priced Bills of Quantities if requested, and the return of all documents.

The Tender is to be delivered, in the envelope provided, to the undersigned not later than 12 o'clock Noon on WEDNESDAY, 31st January, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

Dated this 31st day of November, 1961.

J. HODGKINSON,
Clerk to the Council.

Town Hall,
Stockbridge,
Sheffield.

SEISDON RURAL DISTRICT COUNCIL.

TRYSULL AND SEISDON SEWERAGE SCHEME.

CONTRACT NO. 1.

The Council invite TENDERS from public works contractors having substantial previous experience of such works for the LAYING of approx. 3,950 lin. yd. of 9in. dia., 1,755 lin. yd. of 7in. dia. and 1,090 lin. yd. of 6in. dia. Spun Concrete and Spun Iron PIPE SEWERS together with Concrete Tube Manholes, a Sewage Pumping Station, approx. 1,730 lin. yd. of 6in. dia. Spun Iron Pumping Main and other incidental works.

Copies of the Drawings, Specification, Bills of Quantities and Form of Tender can be obtained from the Engineers, MESSRS. WILLCOX, RAIKES, AND MARSHALL, 33 Great Charles Street, Birmingham, 3, on or after WEDNESDAY, 20th December, 1961, on application accompanied by a statement of previous similar works executed and a cheque for Five Guineas drawn in favour of the Council as a deposit which will be refunded after the delivery of a bona-fide Tender, not subsequently withdrawn, and the return of all documents supplied.

Tenders, on the form supplied, are to be delivered to the undersigned not later than 12 o'clock Noon on SATURADAY, 3rd February, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

A. R. BASKETT,
Clerk of the Council.

Council Offices,
Wombourn,
Near Wolverhampton.
18th November, 1961.

CONTRACTS

BOROUGH OF REIGATE.

TENDERS are invited for SUPPLY CONTRACTS, year commencing 1st APRIL, 1962, viz:—

(a) Providing/Laying (Barber-Greene Spreader) Bitumenised Macadam Surfacing.
(b) Surface Dressing of Carriageways.
(c) Cold Asphalt, Tar/Bitumen Macadams; Tar/Bitumen Emulsions; Concrete Kerbs; Quadrants; Art. Stone Paving Slabs and Edging.
(d) Decorating Materials: (i) Departmental use, (ii) Council tenants' use.
(e) Coal, Coke, Heating Oil.
(f) Paraffin, Motor Spirit, Derv. and Gas Oil, Engine and Lubricating Oils.
(g) Timber.
(h) Electrical Fittings and Requisites.

Form of Tender, etc., from Borough Engineer, Town Hall, Reigate.

Tenders to be received by the undersigned not later than FRIDAY, 29th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender and reserve to themselves the right to accept any Tender in whole or in part.

HEBER DAVIES,
Town Clerk.

Town Hall,
Reigate.

BOROUGH OF EPSOM AND EWELL.

IMPROVEMENTS TO CARRIAGEWAY AND FOOTWAY—CHESSINGTON ROAD, WEST EWELL: AND FOOTWAY RECONSTRUCTION—ALEXANDRA ROAD, EPSOM.

The CORPORATION invite TENDERS from experienced public works contractors for the ABOVE WORKS, which include Kerbing, Laying of Macadam, and ancillary works.

Copies of the Conditions of Contract, Specification, Bill of Quantities, Drawings, Conditions and Form of Tender may be obtained from the Office of COLIN COBBETT, M.I.C.E., M.I.Mun.E., Borough Engineer and Surveyor, Town Hall, Epsom, during working hours, upon payment of a deposit of £2 2s. Deposits will be returned to contractors submitting a bona-fide Tender not subsequently withdrawn.

Tenders must be delivered to me at the address mentioned below not later than Noon on WEDNESDAY, the 20th DECEMBER, 1961, and no Tender will be received and considered unless it is enclosed in a plain sealed envelope endorsed "Improvements—Chessington Road and Alexandra Road." This envelope must not bear any mark or name indicating the sender.

The Corporation do not bind themselves to accept the lowest or any Tender.

EDWARD MOORE,
Town Clerk.

Town Hall,
The Parade,
Epsom.
December, 1961.

BOROUGH OF RAMSGATE.

RECONSTRUCTION OF HARBOUR PARADE SEWER.

TENDERS are invited from contractors experienced in sewer construction in residential areas, for the CONSTRUCTION of approx. 100 lin. yd. of 36in. dia. SEWER and two Manholes, adjacent to an existing sewer.

Drawings may be inspected during normal office hours, and the necessary documents obtained from the Borough Engineer and Surveyor, Municipal Buildings, Ramsgate, upon payment of £2 2s. which will be returned upon receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, endorsed "Reconstruction of Harbour Parade Sewer," must reach the undersigned, in plain sealed envelopes not bearing any name or mark indicating the sender, by not later than 12 Noon on FRIDAY, 22nd December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

K. F. SPEAKMAN,
Town Clerk.

Municipal Buildings,
Ramsgate.
28th November, 1961.

URBAN DISTRICT COUNCIL OF CORBY.

LOCK-UP GARAGES.

TENDERS are invited for the SUPPLY and ERECTION of 99 PRECAST CONCRETE or BRICK GARAGES, together with the Construction of Concrete Bases, Forecourts, Access Roads, Water Supply and Drainage, at three sites, as follows:

Site 1—49 Garages in Blocks of 21, 19 and 9.
Site 2—26 Garages in Blocks of 16 and 10.
Site 3—24 Garages in Blocks of 12 and 12.

Forms of Tender, Specification and Bills of Quantities may be obtained from the undersigned on payment of a deposit of £1 (cheques being made payable to the Urban District Council of Corby). General Conditions of Contract and Drawings may be inspected at the Office of the Engineer and Surveyor, Corporation Street, Corby.

Completed Tenders, in the endorsed envelope provided, together with all other Contract documents, should be returned to the undersigned not later than the First Post on FRIDAY, 5th January, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

G. B. BLACKALL,
Clerk of the Council.

Council Offices,
Corby, Northants.
28th November, 1961.

CUMBERNAULD DEVELOPMENT CORPORATION.

KILDRUM 1 (HOUSING) DEVELOPMENT—THIRD PHASE.

ONE MULTI-STOREY BLOCK OF 64 FLATS.

Contractors wishing to TENDER for the ABOVE 17-STOREY BLOCK OF FLATS, which will have Reinforced Concrete Cross-walls, Precast Concrete Floors and Brick and Timber Curtain Wall Panels, are invited to submit their names to the CHIEF ARCHITECT AND PLANNING OFFICER, Cumbernauld House, Cumbernauld, Glasgow, not later than 29th DECEMBER, 1961.

Drawings may be inspected during normal working hours at the Office of the Architects for this project, MESSRS. GILLESPIE, KIDD AND COIA, 20 Park Circus, Glasgow.

The Corporation reserve the right to select the contractors to whom Tender documents will be issued.

It is anticipated that the Contract will be required to commence in early Spring, 1962, and that the whole of the works will be required to be completed within 18 months following the agreed date of commencement.

Schedules of Quantities for this Several Works Contract will be available in January, and the tendering period will be four weeks.

CONTRACTS

GOVERNMENT OF HONG KONG.

PLOVER COVE AND HEBE HAVEN WATER SCHEME.

It is hereby notified that sealed TENDERS in duplicate are invited for the CONSTRUCTION of the LOWER SHING MUN DAM AND ADJOINING TUNNELS (P.W.D. Contract No. 103 of 1961). The dam is to be 180ft. high and will contain about 1½ million cu. yd. of earth and rockfill. There will be about 1½ miles of 22ft. and 1 mile of 10ft. 6in. equivalent diameter tunnel, shafts and stream intakes, a small concrete supply basin dam, bellmouth spillway and other ancillary works.

Tenders must be delivered to the Secretary of the Tender Board, Colonial Secretariat, Central Government Offices, Lower Albert Road, Hong Kong, not later than 12 Noon on FRIDAY, 16th February, 1962. The package, if sent by post, must be registered and if delivered by hand must be placed in the Tender Box situated in the lift lobby on the 6th floor of the Central Government Offices (Main Wing) at the above address.

Tender documents and further particulars may be obtained from the offices of the Consulting Engineers for the Plover Cove and Hebe Haven Scheme in Hong Kong or London, on deposit of a cheque for H.K.$400 or £25 refundable only on receipt of a bona-fide Tender.

Tenders will only be accepted from firms who can show that they have previously executed successfully works of a similar nature and magnitude.

Contractors registered in Hong Kong and on the Public Works Department list of approved contractors need not pay the above deposit but will be liable to have their names removed from the list of approved contractors if they fail or refuse to implement an accepted Tender or having obtained forms of Tender fail to submit a bona-fide Tender.

The Government does not bind itself to accept the lowest or any Tender.

Consulting Engineers:
BINNIE, DEACON AND GOURLEY,
Artillery House, Artillery Row, Westminster, London, S.W.1.
SCOTT & WILSON, KIRKPATRICK & PARTNERS
Manson House, Nathan Road, Hong Kong.

GLOUCESTERSHIRE COUNTY COUNCIL.

EXETER-LEEDS TRUNK ROAD A.38—IMPROVEMENTS.

TENDERS are invited for the following works:

(a) Gossington Bridge to Cambridge Improvement, consisting of widening 1,700 lin. yd. of existing carriageway to 33ft. and construction of 720 lin. yd. of dual 24ft. carriageways using lean concrete, hot rolled asphalt base and wearing courses together with drainage, kerbing, fencing, accommodation and ancillary works, and the provision of an 18ft. span cattle creep.
(b) Hempton Lane to Almondsbury Improvement, consisting of widening existing carriageway to 33ft. using lean concrete, hot rolled asphalt base and wearing courses together with drainage, kerbing, fencing, accommodation and ancillary works. Length 700yd.

Documents from the County Surveyor, Quay Street, Gloucester, on payment of deposit of £10 in each case, made payable to Gloucestershire County Council, refunded on receipt of a bona-fide Tender and return of documents not later than 10 a.m. on TUESDAY 2nd January, 1962.

GUY H. DAVIS,
Clerk of the County Council.

Shire Hall,
Gloucester.

BOROUGH OF FINCHLEY.

RECONSTRUCTION OF SURFACE-WATER SEWER, VIVIAN WAY, N.2.

TENDERS are invited for the ABOVE-MENTIONED work comprising 85 lin. yd. of 15in. and 113 lin. yd. of 18in. Concrete Pipes, together with Precast Manhole and ancillary works.

Drawings and Conditions of Contract may be seen and the Specification of Works and Form of Tender obtained from the office of the Borough Engineer and Surveyor, 294-296 Regents Park Road, N.3.

A deposit of £2 will be required which will be returned on receipt of a bona-fide Tender and the return of the documents supplied.

No Tender will be considered unless it is received in a plain sealed envelope marked "Tender for S.W. Sewer, Vivian Way," and not bearing any name or mark indicating the sender.

Tenders must reach the undersigned by not later than 12 Noon on MONDAY, 1st January, 1962.

The Council does not bind itself to accept the lowest or any Tender.

R. M. FRANKLIN,
Town Clerk.

Municipal Offices,
Finchley, N.3.
24th November, 1961.

BOROUGH OF WREXHAM.

12 FLATS (THREE BLOCKS) AT ACTON PARK ESTATE, WREXHAM.

FIXED-PRICE TENDERS are invited for the ABOVE CONTRACT.

Application for details, Tender Forms and Bills of Quantities to the Borough Surveyor, Guildhall, Wrexham, enclosing deposit of £2 2s., refundable on receipt of a bona-fide Tender.

Closing date for receipt of Tenders, MONDAY, 8th January, 1962.

The Town Council does not bind itself to accept the lowest or any Tender.

PHILIP J. WALTERS,
Town Clerk.

Guildhall,
Wrexham.
23rd November, 1961.

URBAN DISTRICT COUNCIL OF FILEY.

MUSTON ROAD ESTATE—PHASE VI DEVELOPMENT.

TENDERS are invited for the ERECTION of 19 DWELLINGS, as UNDER:

(a) Five Detached Houses.
(b) Five pairs of Semi-detached Houses.
(c) Two pairs of Semi-detached Bungalows.

Drawings and Conditions of Contract may be seen, and Bills of Quantities and Forms of Tender obtained, on receipt of a deposit of £1 1s. (returnable on receipt of a bona-fide Tender), from the Surveyor, Council Offices, Filey.

Tenders, in plain sealed envelopes endorsed "Muston Road Estate—Phase VI Development," must reach the undersigned not later than 4 p.m. on FRIDAY, the 29th December, 1961.

K. HENDERSON,
Clerk of the Council.

Council Offices,
Filey.

CONTRACTS

ADMINISTRATIVE COUNTY OF LEICESTER.

TENDERS are invited for ROAD RECONSTRUCTION and NEW ROADWORKS at the LEICESTER EAST (STOUGHTON) AIRFIELD.

The work consists of Laying Bituminous Macadam on the existing Runways for a length of approx. 1,400yd., reconstruction of existing road for approx. 880yd. and for complete new road construction of approx. 1,450yd., together with site clearance, Fencing and Drainage Works.

Further details and Form of Tender from the COUNTY ENGINEER AND SURVEYOR, County Offices, Grey Friars, Leicester, on deposit of £5.

Closing date 22nd DECEMBER, 1961.

ADMINISTRATIVE COUNTY OF LEICESTER.

TENDERS are invited for ROAD WIDENING and RECONSTRUCTION at "THE NARROWS," LUTTERWORTH, Route A.426.

The work consists of Demolition of Buildings, Roadworks, Footpath work, Drainage and all ancillary work.

Further details and Form of Tender from the COUNTY ENGINEER AND SURVEYOR, County Offices, Grey Friars, Leicester, on deposit of £5.

Closing date 22nd DECEMBER, 1961.

METROPOLITAN BOROUGH OF PADDINGTON.

156-158 WESTBOURNE PARK ROAD, W.11— ERECTION OF EIGHT DWELLINGS.

The COUNCIL invite applications (to be received by the undersigned not later than 21st DECEMBER, 1961) from builders and contractors who wish to be considered for inclusion in the list of those invited to TENDER for these WORKS.

The Contract embraces the Erection and Completion of two Blocks linked together over an access passage, being one five-storey block containing four maisonnettes and two flats, and a two-storey block containing two maisonnettes, both blocks being constructed with Cross-walls of Brick load-bearing construction. Concrete Fire-resisting Floors and Timber Floors, one Concrete Roof and one Timber Roof, Concrete External Staircase, Pram Sheds, Paths, Drains, and External Services and Siteworks.

The Council require to be satisfied that contractors wishing to tender have had previous experience of works of this nature. Applicants are required to submit particulars of such works, and of the local authorities and/or Architects under whose supervision they have carried them out, with details of the nature and scope of the contract in each case, and the date when it was completed.

It is anticipated that the Bills of Quantities will be available for issue to the selected tenderers during February, 1962, and the Tenders will be receivable during March, 1962.

The contractors who are selected to tender for the works will be required to submit £2 2s. as a deposit, on receipt of which the Bills of Quantities will be supplied. The deposit will be refunded on receipt of a bona-fide Tender.

The Council do not bind themselves to accept the lowest or any Tender.

W. H. BENTLEY,
Town Clerk.

Town Hall,
Paddington Green, W.2.
1st December, 1961.

BOROUGH OF POOLE.

GIRLS' COUNTY SECONDARY SCHOOL, ASHLEY CROSS, PARKSTONE, PREMISES.

The COUNCIL invite TENDERS for works comprising extensive ALTERATIONS to the existing premises.

Closing date for applications, addressed to THE BOROUGH ARCHITECT, with Two Guineas deposit, 18th DECEMBER, 1961. Documents will be issued on 1st January, 1962.

Tenders to me by first registered post on 24th JANUARY, 1962.

J. G. HILLIER,
Town Clerk.

BUSHEY URBAN DISTRICT COUNCIL.

MAKING-UP OF LINK ROAD AND COMPLETION OF BRIDGE OVER RIVER COLNE—JOINT SCHEME WITH BOROUGH OF WATFORD.

TENDERS are invited for the SURFACING of approx. 2,900 super. yd. of CONCRETE CARRIAGEWAY, CONSTRUCTION of approx. 1,850 super. yd. FOOTPATHS, WIDENING AND COMPLETION of 40ft. span, Precast Concrete Beam ROAD BRIDGE, and all incidental works, at LINK ROAD between RADLETT ROAD, Watford, and PARK AVENUE, Bushey.

Plans and conditions of contract may be inspected, and Forms of Tender, Specification and Bills of Quantities obtained from the Engineer and Surveyor, at the address below, on payment of a deposit of £2 2s. refundable on receipt of a bona-fide Tender.

Documents will be available on MONDAY, 11th December, and Tenders in plain envelopes endorsed "Link Road" must be received by me not later than THURSDAY, 4th January, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

C. G. EVERATT,
Clerk of the Council.

Council Offices,
Rudolph Road,
Bushey.

BRIERLEY HILL URBAN DISTRICT COUNCIL.

SHEFFIELD STREET DEVELOPMENT— COMPLETION WORKS.

The Council invite TENDERS for the ABOVE WORKS, comprising approx. 3,730 sq. yd. of Carriageway and 2,200 sq. yd. of Footpath Surfacing, 1,100 cu. yd. of Excavation, and other incidental works.

Drawings and Conditions of Contract may be inspected at the Offices of the Engineer and Surveyor, Civic Buildings, Brierley Hill, Staffs., where the Specification, Bills of Quantities and Form of Tender may be obtained upon payment of a deposit of Three Guineas, which will be refunded on submission of a bona-fide Tender not subsequently withdrawn, and the return of all documents.

Tenders, with fully priced Bills of Quantities, enclosed in a plain sealed envelope endorsed "Sheffield Street Development—Completion Works," are to be returned to the Clerk of the Council, Civic Buildings, Brierley Hill, Staffs., so as to be received not later than 12 o'clock Noon on SATURDAY, 30th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

HERBERT HEX,
Clerk of the Council.

CONTRACTS

HERTFORDSHIRE COUNTY COUNCIL.

COUNTY ROADS.

The Hertfordshire County Council invite TENDERS for the FOLLOWING for the year ending 31st March, 1963:

SUPPLY AND DELIVERY OF:

(1) Tarmacadam.
(2) Asphalt and Bitumen Macadam.
(3) Granite and Slag Chippings (for Surface Dressing).
(4) Tar, Tar and Bitumen Compound, Bitumen and Bitumen Emulsion.
(5) Granite and Concrete Kerbs and Channels.
(6) Concrete Tubes, Manholes and Gullies.
(7) Stoneware Pipes and Gullies, Pitch Fibre Pipes, and Clayware Field Drainpipes.
(8) Cement.
(9) Concrete Aggregates, Hoggin, Grit and Sand.
(10) Shingle for Surface Dressing.
(11) Paints.
(12) Roadmen's Waterproof Clothing.
(13) Lubricating Oils and Grease.

SUPPLY AND LAYING OF:

(14) Tarmacadam.
(15) Asphalt and Bitumen Macadam.
(16) Plastic White Lines.
(17) Fixing of Reflecting Roadstuds.
(18) Surface Spraying of Roads (for Surface Dressing).
(19) Surface Dressing of Roads.
(20) Heating and Planing of Highway Surfaces.
(21) Kerbing, Footway and Drainage Works.

Forms of Tender and envelopes for return may be obtained from the County Surveyor, County Hall, Hertford, on receipt of a stamped addressed foolscap envelope (or larger if forms for more than one Tender required). Envelopes covering such applications should be endorsed "Tenders." No Tender will be considered unless sent in the official envelope provided.

Tenders for each item numbered above must be kept in separate envelopes which must not bear any name or mark indicating the sender.

All Tenders must reach the undersigned on or before MONDAY, the 8th January, 1962.

The lowest or any Tender will not necessarily be accepted.

NEVILLE MOON,
Clerk of the County Council.

County Hall,
Hertford.
December, 1961.

BOROUGH OF DOVER.

TENDERS are invited for the SUPPLY of the FOLLOWING for the 12 months commencing the 1st April, 1962:

Cement.
Tarmacadam, Bituminous Macadam and Cold Asphalt.
Paving Slabs.
Concrete Kerb and Channel.
Sand and Ballast.
Petrol, Lubricating Oils, Diesel Oil and Gas Oil.
Heating Fuel for Oil-fired Heating Plant.
Dustbins.

Forms of Tender may be obtained on application to the Borough Engineer, Brook House, Dover.

Tenders should reach the undersigned not later than the 1st JANUARY, 1962.

Samples should be sent to the Borough Engineer.

JAMES A. JOHNSON,
Town Clerk.

New Bridge House,
Dover.
28th November, 1961.

BOROUGH OF ENFIELD.

ANNUAL CONTRACTS FOR THE SUPPLY OF MATERIALS, ETC.

The CORPORATION invites TENDERS for the SUPPLY of the FOLLOWING ITEMS for the year ending 31st March, 1963:

(a) Tarred Macadam.
(b) Cold Asphalt, Bitumen Macadam and Tack coat.
(c) Concrete Aggregate, Washed Sand, Pit Sand, Shingle.
(d) Cement.
(e) Dustbins, Cisterns and Tanks.
(f) Paints, Oils, Paint Brushes.
(g) Brooms and Brushes.
(h) Precast Concrete Paving Slabs.
(i) Manhole Covers, Gully Grids, Kerb Overflows.
(k) Tools.
(l) Granite Kerb.
(m) Red Granite Chippings.
(n) Bitumen for Surface Dressing.
(o) Precoated Chippings.

Applications for Specifications and Forms of Tender should indicate the Specification required, as lettered above, and should be accompanied by a stamped addressed envelope. Applications should be addressed to the Borough Engineer and Surveyor, 7 Little Park Gardens, Enfield.

Tenders will only be considered if made out on the official form and accompanied by the Conditions of Contract, Specification and Schedule of Materials and Prices, all duly signed in the spaces provided and returned in a plain sealed envelope bearing no name or mark indicating the sender, addressed and delivered to the undersigned so as to arrive on or before 8th JANUARY, 1962.

CYRIL E. C. R. PLATTEN,
Town Clerk.

Civic Centre,
Enfield.

FRIMLEY AND CAMBERLEY URBAN DISTRICT COUNCIL.

72 MAISONNETTES.

FIRM-PRICE TENDERS, based on Bills of Quantities, are invited from experienced contractors for the ERECTION of SIX BLOCKS of FOUR-STOREY MAISONNETTES on the OLD DEAN HOUSING ESTATE, Camberley.

Contractors should apply for Tender documents to MESSRS. CLOSE AND MORTON, Chartered Quantity Surveyors, 20-22 High Street, Camberley, not later than FRIDAY, 22nd December, 1961.

When applying for Tender documents, contractors who have not previously carried out work for the Council should submit details of similar contracts which they have successfully completed, together with the names of referees.

Tenders must be delivered to the undersigned not later than the date indicated on the Form of Tender.

The Council does not bind itself to accept the lowest or any Tender.

K. S. HARVEY,
Clerk of the Council.

Municipal Buildings,
London Road,
Camberley, Surrey.
27th November, 1961.

CONTRACTS

CORNWALL COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

TENDERS are invited for the SUPPLY of the FOLLOWING ITEMS OF PLANT, to be delivered during April, 1962:

(a) Six 4-ton Diesel Tipping Lorries.
(b) Three Semi-Industrial 30/40-h.p. Tractors.
(c) Two Portable Rotary Air Compressors.
(d) One Loading Shovel with 4-wheel drive.
(e) One 10/7 Concrete Mixer.

Further particulars may be obtained on application in writing to the County Surveyor, County Hall, Truro.

Tenders in respect of each item tendered for must be delivered, in the envelope supplied, to the Clerk of the County Council, Room 3, County Hall, Truro, not later than WEDNESDAY, 20th December, 1961. No name or mark indicating the sender is to be added to the envelope.

The County Council do not bind themselves to accept the lowest or any Tender.

E. T. VERGER,
Clerk of the County Council.

County Hall,
Truro.
November, 1961.

BOROUGH OF TOTTENHAM.

RECONSTRUCTION OF WILLOUGHBY LANE (B.137).

TENDERS are invited for the RECONSTRUCTION of a LENGTH of the ABOVE ROAD, extending from its junction with Heybourne Road northwards to the Borough Boundary with Edmonton.

The work consists of Breaking-out the existing Carriageway and Excavating to an average depth of 16in. over an area of approx. 4,800 sq. yd., and Reconstructing the Carriageway with 4in. of Cement Stabilised Hoggin, 8in. of Reinforced Concrete and 3in. of Hot Rolled Asphalt in two courses. Approx. 300 lin. yd. of Granite Kerb and 1,000 sq. yd. of Artificial Stone Paving will be taken up and relaid.

Plans may be inspected during normal office hours at the Borough Engineer's Department, Town Hall, Tottenham, N.15, from whom Contract documents may be obtained on payment of £2 (returnable on receipt of a bona-fide Tender).

The closing date for receipt of Tenders is 12 Noon on WEDNESDAY, 20th December, 1961, and they should be addressed to the undersigned, in the envelope supplied, the envelope to bear no mark identifying the sender.

M. LINDSAY TAYLOR, LL.B.,
Town Clerk.

Town Hall,
Tottenham, N.15.

RHONDDA BOROUGH COUNCIL.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

The above Council invites TENDERS for the FOLLOWING:

(1) Stoneware Pipes.
(2) Bricks.
(3) Artificial Paving and Kerb.
(4) Portland Cement.
(5) Street Brushes.
(6) Sand.
(7) Tarspraying.
(8) Paint, Paint Oils, etc.
(9) Bib and Brace Overalls and Jackets and Boiler Suits.
(10) Ironmongery, Rainwater Goods, Wallboards, Tools, Sundries.
(11) Tarred Macadam.
(12) Granite Chippings.

All the above except No. 7 are for the period of one year ending 31st March, 1963: No. 7 is for the period between April and August, 1962.

Specifications and Forms of Tender may be obtained on application to the Borough Engineer and Surveyor, Municipal Offices, Pentre, Rhondda.

Sealed Tenders, in the envelope provided by the Council, should be received not later than 10 a.m. on the 15th day of JANUARY, 1962.

The lowest or any Tender will not necessarily be accepted.

Dated this 28th day of November, 1961.

E. D. WILDE,
Town Clerk.

Municipal Offices,
Pentre,
Rhondda, Glam.

POULTON-LE-FYLDE URBAN DISTRICT COUNCIL.

SUPPLY OF TRACTOR AND TRAILER.

TENDERS are invited for the SUPPLY of a TRACTOR and Trailer.

Copies of the Specification may be obtained on application to the Engineer and Surveyor, Town Hall, Poulton-le-Fylde.

Tenders, in plain sealed envelopes endorsed "Tender for Tractor," must be delivered to the undersigned not later than 2nd JANUARY, 1962.

A. SENIOR,
Clerk of the Council.

Town Hall,
Poulton-le-Fylde.

THORNBURY RURAL DISTRICT COUNCIL.

ALMONDSBURY DRAINAGE — CONTRACT NO. 8.

The Council is prepared to receive TENDERS for the CONSTRUCTION of approx. 12,000yd. of 7in. dia. and 150yd. of 9in. dia. CONCRETE COVER, together with Manholes and other ancillary works, and the LAYING of 1,000yd. of 6in. SPUN-IRON RISING MAIN, and the Construction of a Pumping Station and Sewage Treatment Works, in accordance with Specification and Drawings prepared by the Council's Engineers, MESSRS. JOHN TAYLOR AND SONS, Artillery House, Artillery Row, Victoria Street, Westminster, S.W.1.

Copies of the Specification, Bill of Quantities and Form of Tender may be obtained from the Engineers upon payment of £5 (cheque only, made payable to the Thornbury Rural District Council) which will be returned on receipt of a bona-fide Tender.

The Drawings may be inspected at the Offices of the Engineers or at the Council Offices.

Tenders, in plain sealed envelopes endorsed "Tender—Almondsbury Drainage—Contract No. 8," addressed to the undersigned, should be delivered at the Council Offices on or before Noon on MONDAY, 15th January, 1962.

The Council does not bind itself to accept the lowest or any Tender.

J. L. JUDD,
Clerk of the Council.

Council Offices,
Stokefield House,
Thornbury,
Bristol.
27th November, 1961.

CONTRACTS

ADMIRALTY.

N.A.T.O. COMMON INFRASTRUCTURE.
SLICES V, VIII AND IX
NAVAL BASE INSTALLATIONS
(Reference Infra 33/1/2/3).

PRELIMINARY NOTICE is hereby given that INTERNATIONAL COMPETITIVE BIDS will be invited about March, 1962, for the Design and Construction of Steel Masts and Towers and Foundations thereto, for a Radio Station in MALTA.

A further Notice will be issued shortly and will provide details enabling contractors to indicate their desire to bid.

Inquiries regarding bidding, Specifications and Conditions of Contract should not be made until this further Notice is issued.

Admiralty,
London.
November, 1961.

CHESHIRE COUNTY COUNCIL.

SHREWSBURY-WHITCHURCH-WARRINGTON TRUNK ROAD, A.49.

IMPROVEMENT AT WHITE BARN HOTEL, CUDDINGTON.

TENDERS are invited for WIDENING the ABOVE ROAD for a length of approx. 600 lin. yd. The works include Fencing, Drainage, Earthworks, Kerbing, Carriageway and Footway Construction.

Form of Tender, Conditions of Contract, Specification, Bill of Quantities and Plans may be obtained from the undersigned on payment of Five Guineas by crossed cheque which will be returned in the case of a bona-fide Tender not subsequently withdrawn, submitted to the Clerk of the County Council, County Hall, Chester, in a plain sealed envelope endorsed "Improvement at White Barn Hotel, Cuddington," not later than Noon on MONDAY, 1st January, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

C. G. DAY,
County Surveyor and Bridgemaster.

County Surveyor's Department,
Backford Hall,
Near Chester.
28th November, 1961.

COUNTY BOROUGH OF BIRKENHEAD.

ROADS DEPARTMENT.

TENDERS are invited for the FOLLOWING SUPPLIES for 12 months ending 31st March, 1963:

(1) Granite.
(2) Tarred Macadam and Hot Rolled Asphalt.
(3) Natural Kerbs and Flags.
(4) Concrete Kerbs and Channel.
(5) Concrete Flags.
(6) Cement.
(7) Bituminous and Tar Compounds.
(8) Salt Glazed Ware Pipes, etc.
(9) Iron Castings.
(10) Coarse and Fine Gravel Aggregates.
(11) Supplying, Laying and Maintenance of Hot Asphaltic Paving.

Forms of Tender, Specifications and Instructions from the BOROUGH ENGINEER AND SURVEYOR, 3 Conway Street, Birkenhead. Closing date for Tenders: 8th JANUARY, 1962.

BOROUGH OF LEIGH.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

TENDERS are invited for the SUPPLY of the FOLLOWING:—

Concrete Flags, Kerbs, Channels and Quadrants.
Natural Stone Kerbs.
Broken Stone.
Sand.
Granite Chippings (Dry and Precoated).
Ashes.
Hot Rolled Asphalt.
Cold Asphalt.
Bituminous Macadam and Hot Mix.
Bituminous Cold Emulsions.
Refined Tar with Bitumen Content.
Castings.
Street Nameplates.
Portland Cement.
Stoneware Pipes.
Concrete Sewer Tubes, etc.
Tarspraying.
Street Lighting Equipment.
Flagging, Kerbing and Channelling—Labour only.
Ready Mixed Concrete.
Hired Haulage.

Particulars and Forms of Tender may be obtained from the Borough Engineer and Surveyor, Town Hall, Leigh, Lancs.

The Corporation do not bind themselves to accept the lowest or any Tender, and reserve the right to divide the contract in any way they think fit.

Tenders, in plain sealed envelopes, endorsed "Tender for ——," and addressed to the undersigned, must be delivered not later than 12 Noon on FRIDAY, 5th January, 1962.

ALBERT JONES,
Town Clerk.

Town Hall,
Leigh, Lancs.

SOUTHAMPTON HARBOUR BOARD.

DREDGING—TENDER.

The Southampton Harbour Board invites TENDERS for DEEPENING the Board's MAIN DEEP-WATER APPROACH CHANNEL in all its reaches lying between Hamble Point and the West Bramble Bank, off Calshot. The quantity to be removed in this operation is approx. 5m. cu. yd. (in situ).

Conditions of Contract, Specification, Bill of Quantities, Form of Tender and Plans may be obtained from the Board's Hydrographic Surveyor, CMDR. D. H. MACMILLAN, M.B.E., R.N.R., F.R.I.C.S. (Chartered Surveyor), at the Board's Hydrographic Office, on payment of a deposit of Ten Guineas which will be refunded on receipt of a bona-fide Tender and return of all the documents.

A site investigation by nine borings will be commenced on, or near, Monday, 4th December, 1961, for the benefit of tendering parties, who are advised to send a representative to the area within a week of this date, in their own interests.

Specification and Plans may be inspected at the Board's Hydrographic Office, Harbour Offices, Town Quay, Southampton.

Tenders must reach the undersigned, in a sealed envelope marked "Dredging Tender," not later than Noon on WEDNESDAY, 17th January, 1962.

The Southampton Harbour Board does not bind itself to accept the lowest or any Tender.

C. P. EASTBURN,
General Manager and Clerk.

Harbour Offices,
Town Quay,
Southampton.
28th November, 1961.

CONTRACTS

DORSET COUNTY COUNCIL
EDUCATION COMMITTEE.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED ITEMS for Schools maintained by the County Council, for the period of two years from 1st April, 1962, to 31st March, 1964:

Books; Cleaning Equipment and Materials; Furniture; Garden Tools; Handwork Materials; Needlework Materials; Physical Education Equipment; Stationery; Sweeping Compound; Timber, Metalwork Materials; and for Piano Tuning.

Forms of Tender and Conditions, with further particulars, may be obtained from the County Education Officer, County Hall, Dorchester.

Tenders must be delivered to the undersigned by 10 a.m. on the 20th JANUARY, 1962, in the special envelope provided, marked "School Equipment."

The Council do not bind themselves to accept the lowest or any Tender.

A. C. TEMPLEMAN,
Clerk of the County Council.

COUNTY BOROUGH OF BLACKBURN.

TENDERS invited for the SUPPLY and DELIVERY of 440 PAIRS RUBBER KNEE BOOTS with Cleated Soles and Heels.

Tender Forms, from Borough Engineer, Town Hall, Blackburn, returnable to me by 21st DECEMBER, 1961.

A sample pair of rubber boots to be sent to the Borough Engineer.

FRANK SQUIRES,
Town Clerk.

CITY OF BIRMINGHAM.

TO BUILDING CONTRACTORS.

CONTRACT T.50/18—TENNANTS' MEETING ROOM, DEELANDS ROAD, RUBERY.

The HOUSEBUILDING COMMITTEE invite TENDERS for the ERECTION of the ABOVE.

Bills of Quantities and Form of Tender will be forwarded on payment of £2 2s. at the Office of A. G. SHEPPARD FIDLER, City Architect, Baskerville House, Civic Centre, Birmingham, 1, to whom all cheques should be made payable. Applications should be made by 12th DECEMBER, 1961. Conditions of Contract (which include the usual Fair Wages and Conditions of Labour Clause) may be seen at the City Architect's Office during normal working hours.

The deposit will be returned on receipt of a bona-fide Tender, or on notification of inability to tender, together with the return of the documents not later than three days before the date for receipt of Tenders.

Tenders, enclosed in the envelope provided for the purpose, must be sealed and delivered to the Town Clerk's Office (Room No. B.31), Council House, Birmingham, 1, not later than 12 Noon on FRIDAY, the 12th January, 1962. Tenders received after that time will be rejected.

The Committee do not bind themselves to accept the lowest or any Tender.

T. H. PARKINSON,
Town Clerk.

Council House,
Birmingham, 1.

CATERHAM AND WARLINGHAM URBAN DISTRICT COUNCIL.

WIDENING OF CREWES LANE, WARLINGHAM.

TENDERS are invited for the WIDENING of CREWES LANE, Warlingham.

The works comprise the Removal of the existing Bank, the Construction of Retaining Walls, and incidental accommodation works, the Laying of 200 lin. yd. of Precast Concrete Kerbs, the Construction of 160 sq. yd. of new Footpath in Bitumen Macadam, and the Construction of 350 sq. yd. of new Carriageway in 9in. of Hardcore and 2½in. of Bitumen Macadam, and a Carpet of Bitumen Macadam over the whole Carriageway.

Plans and documents are obtainable from the Engineer and Surveyor, Council Offices, Caterham.

Tenders are to be returned to the undersigned not later than Noon on 2nd JANUARY, 1962, in the endorsed envelope provided.

B. J. SMERDON,
Clerk of the Council.

Council Offices,
Caterham.

CATERHAM AND WARLINGHAM URBAN DISTRICT COUNCIL.

EXTENSION OF CAR PARK—CATERHAM.

TENDERS are invited for the EXTENSION of CLAREVILLE ROAD CAR PARK, Caterham.

The works comprise Site Clearance, including Minor Demolition Works, the Grading of approx. 5,000 sq. yd., the Laying of 200 lin. yd. of Precast Concrete Kerbing, and the Construction of the Car Park with 9in. Hardcore and 2in. of Bitumen Macadam, together with Drainage and ancillary works.

Plans and documents are obtainable from the Engineer and Surveyor, Council Offices, Caterham, on payment of a deposit of Two Guineas made payable to the Council. The deposit is returnable subject to receipt of a bona-fide Tender not subsequently withdrawn, and the return of all documents.

Tenders are to be returned to the undersigned not later than Noon on 2nd JANUARY, 1962, in the endorsed envelope provided.

B. J. SMERDON,
Clerk of the Council.

Council Offices,
Caterham.

THE URBAN DISTRICT COUNCIL OF ESTON.

PROPOSED PUBLIC CONVENIENCE AT NORMANBY.

TENDERS are invited for the CONSTRUCTION of a PUBLIC CONVENIENCE at Normanby Road, Normanby.

Copies of the Bills of Quantities and Form of Tender may be obtained from N. C. HARRISON, A.M.I.C.E., M.I.Mun.E., Engineer and Surveyor, Town Hall, Fabian Road, South Bank, Middlesbrough, on payment of a deposit of Two Guineas which will be refunded on receipt of a bona-fide Tender (not subsequently withdrawn) or the return of the documents before the closing date for the receipt of Tenders.

Tenders, in plain sealed envelopes endorsed "Tender for Convenience," but not bearing any name or mark indicating the sender, must reach me by Noon on THURSDAY, the 14th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

T. MYRDDIN BAKER,
Clerk of the Council.

Town Hall,
Fabian Road,
South Bank,
Middlesbrough.
29th November, 1961.

CONTRACTS

BOROUGH OF MAIDENHEAD.

KING STREET RECONSTRUCTION—SECTION 1.

INVITATION TO TENDER

The COUNCIL invites TENDERS for the CONSTRUCTION of an 8in. REINFORCED CONCRETE FOUNDATION on a Hoggin Sub-base; the Taking-up and Re-laying of existing Kerb as necessary; Provision and Laying of approx. 2,000 sq. yd. of Rolled Asphalt Base and Wearing Courses to Carriageway, Surface Water Drainage, and all incidental works.

Drawings may be seen at, and Tender documents obtained from, the Office of the Borough Engineer and Surveyor, Town Hall, St. Ives Road, Maidenhead, on payment of a deposit of Two Pounds (£2), which will be refunded upon receipt of a bona-fide Tender and the return of all documents.

Tenders, in plain sealed envelopes endorsed "King Street Reconstruction—Section 1," and bearing no mark or indication of the sender, must be delivered to me not later than MONDAY, the 1st January, 1962.

The Council does not bind itself to accept the lowest or any other Tender.

STANLEY PLATT,
Town Clerk.

Guildhall,
Maidenhead, Berks.
December, 1961.

BOROUGH OF PRESTWICH

TENDERS are invited for EXTERNAL PAINTING of approx. 108 HOUSES on the BENT HILL ESTATE.

The Corporation's General Conditions of Contract may be inspected, and the Specification and Form of Tender obtained from the Borough Engineer, Town Hall, Prestwich, upon payment of One Guinea which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, endorsed "Painting 108 Houses," must be received by the undersigned not later than First Post on SATURDAY, 23rd December, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

C. A. CROSS,
Town Clerk.

Town Hall,
Prestwich.
November, 1961.

BOROUGH OF HIGH WYCOMBE.

GOMM ROAD (SECTIONS 1 AND 2).

PRIVATE STREET WORKS.

TENDERS are invited for the MAKING-UP of GOMM ROAD (approx. length 255 lin. yd.).

The works involve the Laying of 12in. dia. Foul and 21in. dia. Surface Water Sewers in Concrete Pipes, Construction of a Concrete Carriageway and a Tarmacadam Carriageway, Tarmacadam Footpaths, Grass Verges, etc.

Conditions of Contract and Drawings may be inspected on any day (Saturdays excepted) during normal office hourse, and the Specification, Bill of Quantities and Form of Tender may be obtained on application to the undersigned, upon the deposit of Two Guineas which sum will be refunded on receipt of a bona-fide Tender.

Tenders, in a plain sealed envelope, endorsed "Tender for Gomm Road P.S.W.," must be delivered to the undersigned not later than Noon on TUESDAY, 19th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

J. A. PARKINSON, M.A., A.M.I.C.E.,
Borough Engineer and Surveyor.

Municipal Offices,
High Wycombe.

CITY AND COUNTY OF BRISTOL.

TENDERS invited for SUPPLY of PORTABLE ROTARY DRILLING MACHINE.

Forms of Tender and Specification from CITY ENGINEER, Cabot House, Deanery Road, Bristol, returnable by 15th DECEMBER.

DULVERTON RURAL DISTRICT COUNCIL.

DULVERTON AND BRUSHFORD WATER SUPPLY.

The Council invite FIXED-PRICE TENDERS from contractors having experience in similar work, for the LAYING of approx. 2,680 lin. yd. of 3in. and 4in. dia. ASBESTOS-CEMENT WATER MAINS, and all ancillary works, at Dulverton and Brushford.

Tender documents may be obtained from the Council's Consulting Civil Engineers, MESSRS. HARVEY, McGILL AND HAYES, 8 Richmond Road, Exeter, on and after Tuesday, 12th December, 1961, and at whose Office Plans may be inspected by appointment during normal office hours.

Applications are to be accompanied by a cheque for £5 5s. made payable to Dulverton Rural District Council, and, in the case of contractors who have not previously carried out work for the Council, or under the direction of the Engineers, by particulars of similar work executed, and the names and addresses of the Engineers concerned. The deposit will be refunded upon the receipt of a bona-fide Tender not subsequently withdrawn, and the return of all Tender documents.

Tenders are to be delivered in a plain sealed envelope endorsed "Dulverton and Brushford Water," but bearing no name or mark of identification, to the undersigned not later than 12 Noon on THURSDAY, 4th January, 1962.

The Council do not bind themselves to accept the lowest or any Tender they may receive.

R. W. HALSE,
Clerk.

Council Offices,
Dulverton, Som.

PLOUGHLEY RURAL DISTRICT COUNCIL.

HETHE SEWERAGE AND SEWAGE DISPOSAL SCHEME.

FIXED-PRICE TENDERS are invited for LAYING approx. 1,100 lin. yd. of 6in. dia. SEWERS, and a LUMP-SUM PRICE for the CONSTRUCTION of a PUMPHOUSE and SEWAGE DISPOSAL WORKS at Hethe, six miles from Bicester, Oxon.

Documents obtainable from the Engineer and Surveyor on deposit of £2, refundable on receipt of a bona-fide Tender.

Tenders are to be received by the undersigned not later than 12 Noon, THURSDAY, 28th December, 1961.

WILFRID C. WIGNEY,
Clerk of the Council.

Council Offices,
Waverley House,
Bicester, Oxon.
28th November, 1961.

CONTRACTS

COUNTY COUNCIL OF DURHAM.

TENDERS invited for SUPPLY of ENGINEERING EQUIPMENT to SHEET METAL DEPARTMENT at STOCKTON-BILLINGHAM TECHNICAL COLLEGE.
Forms of Tender, returnable by 22nd DECEMBER, 1961, and details from undersigned.

G. H. METCALFE,
Director of Education.

Shire Hall,
Durham.
27th November, 1961.

GLOUCESTERSHIRE COUNTY COUNCIL.

TENDERS are invited for PRIVATE STREET WORKS in BILLBROOK ROAD, Hucclecote (approx. length 200yd.).
Documents from the County Surveyor, Quay Street, Gloucester (where Plans, Specification, etc., may be inspected), upon payment of £2 2s., returnable on receipt of bona-fide Tenders and return of documents not later than 10 a.m., 2nd JANUARY, 1962.

GUY H. DAVIS,
Clerk of the County Council.

COUNTY BOROUGH OF TYNEMOUTH.

BOROUGH SURVEYOR'S DEPARTMENT.

PRESTON CEMETERY EXTENSION.

TENDERS are invited for the CONSTRUCTION of ROADS and SEWERS in connection with the Extension of Preston Cemetery.
The work includes approx. 900yd. of Sewers and Drains, 700 sq. yd. of Carriageway, 200 sq. yd. of Paths and 800yd. of Fencing.
Relevant documents may be obtained from D. M. O'HERLIHY, O.B.E., B.Sc., M.I.C.E., Borough Surveyor, 16 Northumberland Square, North Shields, upon receipt of a deposit of £2 2s. which will be returned upon receipt of a bona-fide Tender and the return of all documents and drawings.
Tenders shall be delivered to the Borough Surveyor not later than 10 a.m. on MONDAY, 8th January, 1962.
The Corporation does not bind itself to accept the lowest or any Tender.

(Signed) FRED. G. EGNER, O.B.E.,
Town Clerk.

BOROUGH OF BROMLEY.

CAR PARK—ELMFIELD ROAD.

TENDERS are invited for the CONSTRUCTION of the ABOVE CAR PARK.
This comprises the Demolition of existing Buildings, Works of Excavation and Filling, Hardcoring and Surfacing, together with ancillary works, approx. 8,000 sq. yd.
The Drawings and Conditions of Contract may be inspected at the Office of the Borough Engineer, Municipal Buildings, Bromley, to whom application should be made for the Bills of Quantities, Specification and Form of Tender.
Tenders, in the envelopes provided, should be submitted to the undersigned not later than 30th DECEMBER, 1961.
The Council does not bind itself to accept the lowest or any Tender.

LIONEL KAYE,
Town Clerk.

Municipal Buildings,
Bromley, Kent.
27th November, 1961.

BOROUGH OF BROMLEY.

SURFACE WATER SEWER—
WIDMORE GREEN TO GIRLS COUNTY SCHOOL.

TENDERS are invited for the CONSTRUCTION of approx. 780 lin. yd. of CONCRETE PIPES of various diameters from 18in. to 33in.; 110 lin. yd. of 4in. Land Drains and 15 Manholes.
Drawings may be inspected at the Offices of the Borough Engineer, Municipal Buildings, Bromley, Kent.
Contractors wishing to tender should apply to the Borough Engineer for the Specification, Bills of Quantities, Conditions of Contract and Form of Tender, which should be returned, in the envelope provided, to the undersigned not later than MONDAY, 8th January, 1962.
The Council does not bind itself to accept the lowest or any Tender.

LIONEL KAYE,
Town Clerk.

Municipal Buildings,
Bromley, Kent.
28th November, 1961.

CITY AND COUNTY OF NEWCASTLE UPON TYNE.

The HOUSING COMMITTEE of the CORPORATION are prepared to receive TENDERS for the ERECTION of 64 MAISONNETTES in FOUR FOUR-STOREY BLOCKS in the SCOTSWOOD REDEVELOPMENT AREA.
Bills of Quantities and Form of Tender may be obtained on application, in writing, to the City Architect, 18 Cloth Market, Newcastle upon Tyne, 1, where Conditions of Contract may be seen.
Sealed Tenders must reach the City Architect not later than 10 a.m. on WEDNESDAY, 20th December, 1961. No Tender will be received except in the official envelope provided, which must not bear any name or mark indicating the sender. The Committee do not bind themselves to accept the lowest or any Tender.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
23th November, 1961.

NEWCASTLE UPON TYNE EDUCATION COMMITTEE.

CHARLES TREVELYAN COUNTY PRIMARY SCHOOL, CRUDDAS PARK, NEWCASTLE UPON TYNE, 4.

TENDERS are invited for the ERECTION of a PRIMARY SCHOOL for 360 pupils, the superstructure of which will be of a proprietary prefabricated system.
General contractors and specialists in heating and electrical installations wishing to tender for any of the undermentioned work should make separate applications to the City Architect, 18 Cloth Market, Newcastle upon Tyne, 1, within 14 days of the appearance of this advertisement:—
(1) General Contractors' Work.
(2) Heating, Hot and Cold Water and Gas Installations.
(3) Electrical Installation.
The Education Committee does not bind itself to accept the lowest or any Tenders.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
24th November, 1961.

CONTRACTS

COUNTY BOROUGH OF BIRKENHEAD.

POLICE SERVICE.

TENDERS are invited for the SUPPLY of UNIFORMS, WATERPROOF CLOTHING, CAPS and HELMETS, LEATHER and COTTON GLOVES, SHIRTS, COLLARS, TIES, LEATHER LEGGINGS, and WOMEN'S STOCKINGS for members of the Borough Police Force during the year ending 31st March, 1963.
Forms of Tender, Conditions, etc., from the CHIEF CONSTABLE, Police Headquarters, Chester Street, Birkenhead.
Will contractors please indicate the particular items for which they require Tender Forms.
Closing date for Tenders: 2nd JANUARY, 1962.

BOROUGH OF ILKESTON.

ROAD MATERIALS, ETC., YEAR 1962-63.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS (including the LAYING of COATED MACADAM, etc., by machine) for the year ending 31st March, 1963:—
(1) Broken Granite.
(2) Furnace Slag.
(3) Tarmacadam.
(4) Bitumen Macadam.
(5) Mastic Asphalt.
(6) Rolled Asphalt.
(7) Cold Asphalt
(8) Asphalt Base Course.
(9) Precoated Leicestershire Granite Chippings.
(10) Gravel.
(11) Concrete Kerbs.
(12) Concrete Slabs.
(13) Concrete Block Channel.
(14) Sand.
(15) Refined Tar, Bitumen, Bituminous Compounds and Cold Emulsions.
(16) Cement.
(17) Motor Spirit.
(18) Fuel Oil (Derv).
(19) Gas Oil.

Full particulars, Specifications and Forms of Tender may be obtained on application to the Borough Surveyor, Town Hall, Ilkeston.
Tenders, enclosed in plain sealed envelopes, addressed to the undersigned, endorsed "Tenders for Road Materials, etc.," but not bearing any name or mark indicating the sender, must be received not later than 12 Noon on FRIDAY, 5th January, 1962.
The Council does not bind itself to accept the lowest or any Tender.

J. YATES,
Town Clerk.

Town Hall,
Ilkeston.
27th November, 1961.

ESHER URBAN DISTRICT COUNCIL.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS and SERVICES for the period of 12 months commencing 1st April, 1962:
(1) Ballast and Sand (including winter road gritting materials).
(2) Shingle.
(3) Granite Chippings.
(4) Cold Asphalt and Bitumen Emulsion.
(5) Refined Tar.
(6) Bituminous Macadam.
(7) Concrete Paving Slabs.
(8) Concrete Kerbs and Edgings.
(9) Glazed Pipes and Accessories.
(10) Fireplace and Range Parts.
(11) Protective Clothing.
(12) Motor Spirit.
(13) Diesel Fuel Oils and Gas Oils.
(14) Vehicle Tyres.
(15) Traffic Signs and Street Nameplates.
(16) Portland Cement, Bricks and Hollow Concrete Blocks.
(17) Ashes, Breeze and Clinker.
(18) Precoated Granite Chippings.
(19) Tarred Slag, Macadam.
(20) Ready Mixed Concrete.
(21) Broken Coke.
(22) Gully Emptying.
(23) Rebristling Brushes for mechanical sweeper collectors.
(24) Supply and Application of Plastic White Lines and Lifting or Setting of Reflecting Road Studs for Highways.
(25) Resurfacing of Carriageways in Bituminous Macadam and Hot Rolled Asphalt, and Resurfacing of Footways in Fine Cold Asphalt.

Forms of Tender may be obtained from the Engineer and Surveyor and Planning Officer, Council Offices, Esher.
Tenders, on the prescribed forms, enclosed in the envelopes provided, which must bear no name or mark indicating the sender, to be received by the undersigned not later than 5 p.m. on FRIDAY, 29th December, 1961.

A. G. CHAMBERLIN,
Clerk of the Council.

Council Offices,
Esher, Surrey.
27th November, 1961.

DESBOROUGH URBAN DISTRICT COUNCIL.

DESBOROUGH SEWERAGE.

TENDERS are invited from experienced contractors for the LAYING of approx. 1,000yd. of 9in. and 6in. dia. SEWERS, together with the Construction of Manholes, and ancillary works.
Specification, Bill of Quantities and Plan may be obtained from the Consulting Engineers, MESSRS. PICK, EVERARD, KEAY AND GIMSON, 6 Millstone Lane, Leicester, on payment of a deposit of £3 3s. which will be returned on receipt of a bona-fide Tender.
Tenders, on the loose form and in the envelope provided, should be delivered to the undersigned not later than 10 o'clock in the Forenoon of WEDNESDAY, the 10th January, 1962.
The Council do not bind themselves to accept the lowest or any Tender.

G. GREAVES,
Clerk of the Council.

Council Offices,
Desborough,
Kettering, Northants.

HEMEL HEMPSTEAD RURAL DISTRICT COUNCIL.

TENDERS are invited on a Fixed-price Basis for the SUPPLY of ONE REFUSE COLLECTION VEHICLE in April, 1963.
Tenders will specify two separate quotations: (1) for a fore-and-aft type body with a compression device, the body having a nominal capacity of 25 cu. yd.; (2) for a packing body with a removal capacity of 50 cu. yd.
Details and Forms of Tender from R. H. T. CHAPPELL, Senior Public Health Inspector, The Bury, Hemel Hempstead, Herts.

CONTRACTS

HERTFORDSHIRE COUNTY COUNCIL.

HIGHWAYS ACT, 1959—PART IX.

PRIVATE STREET WORKS AND BRIDGE IMPROVEMENT.

TENDERS are invited for MAKING-UP GREEN LANE (PART) and WOODWAYE (PART), Oxhey.
Green Lane is 300yd. long, with 20ft. Carriageway, two 6ft. Footways and a Verge 4ft. wide. The work includes the Provision of a Surface Water Drain, Widening the existing Carriageway to 20ft., Surfacing with Tarmacadam, Provision of Kerbing, Construction of two Bituminous Macadam Footways, and Crossings. Also included is the Widening and Redecking of existing 10ft. span Bridge over the Hartsbourne stream, the new deck being of Reinforced Concrete.
Woodwaye (part) is 50yd. long, with 22ft. Carriageway, two 6ft. Footways and two Verges. The work includes Reshaping existing Carriageway and Surfacing with Tarmacadam, the Provision of Kerbing, Construction of two Bituminous Macadam Footways, and Crossings.
The Drawings may be inspected by appointment, and copies of the Conditions of Contract, Specification, Bill of Quantities and Form of Tender may be obtained from the County Surveyor's Department, County Hall, Hertford.
Tenders must be delivered, in the envelope provided, to the CLERK OF THE COUNTY COUNCIL, County Hall, Hertford, not later than 3rd JANUARY, 1962.
The Council do not bind themselves to accept the lowest or any Tender.

CITY OF PLYMOUTH.

EGGBUCKLAND VALLEY SEWER—STAGE II.

SUPPLY OF PIPES AND MANHOLES.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING B.S. CONCRETE MANHOLES and HORIZONTALLY CENTRIFUGALLY SPUN CONCRETE PIPES (20 Manholes), depths varying between 12ft. and 5ft.

600 lin. yd. approx. 21in. dia. Concrete Pipes (Flexible Joints).
400 lin. yd. approx. 18in. dia. Concrete Pipes (Flexible Joints).
480 lin. yd. approx. 15in. dia. Concrete Pipes (Flexible Joints).
390 lin. yd. approx. 12in. dia. Concrete Pipes (Flexible Joints).

Contractors may tender for either Manholes or Concrete Pipes, or both.
Tender documents may be obtained from the undersigned.
No Tender will be received except in a plain sealed envelope addressed to the Town Clerk, Pounds House, Peverell, Plymouth, which, in the case of a Tender for Manholes must bear the words "Tender for Concrete Manholes—Eggbuckland Valley—Stage II," and for Concrete Pipes the words "Tender for Concrete Pipes—Eggbuckland Valley—Stage II," but shall not bear any name or mark indicating the sender.
Tenders will be received until 12 Noon, 21st DECEMBER, 1961.

J. ACKROYD,
City Engineer and Surveyor.

PRUDHOE URBAN DISTRICT COUNCIL.

ERECTION OF GARAGES.

FIXED-PRICE TENDERS are invited for the ERECTION of 18 BRICK GARAGES in a One Island Block at WEST WYLAM.
Tender documents may be obtained from the undersigned on payment of £2 2s. deposit which will be returned on receipt of a bona-fide Tender.
Closing date for Tenders: 6th JANUARY, 1962.

T. PHILIPSON,
Clerk of the Council.

Council Offices,
18 South Road,
Prudhoe-on-Tyne,
Northumberland.
30th November, 1961.

HAVERFORDWEST RURAL DISTRICT COUNCIL.

ST. DAVIDS (SOLVA ABSTRACTION) WATER SUPPLY SCHEME.
(Second Section—Pumping Station, Intake Works, and Rising Main.)

TENDERS are invited from competent building and civil engineering contractors, on a Fixed-price Basis, for the CONSTRUCTION and COMPLETION of a WATER PUMPING AND TREATMENT STATION, including attendance on the machinery contractor, a River Intake and Weir, Clear Water Tank, Wash Water Lagoon, and incidental Siteworks, together with a short length of 6in. Asbestos Pressure Pipe Rising Main. The site, at MIDDLE HILL, Solva, lies some 15 miles west north west of Haverfordwest.
Plans, Specifications and Bills of Quantities may be obtained from the Council's Surveyor and Water Engineer, 8-10 Picton Place, Haverfordwest, Pembs. No deposit is required, but contractors are expected to return all drawings and documents, and the Council reserves the right to charge for all, or any, such items which are not returned.
Tenders, in plain sealed envelopes endorsed "St. Davids Water (Second Sections)," should be returned to me not later than FRIDAY, 19th January, 1962.
The Council does not undertake to accept the lowest or any Tender, and acceptance is subject to the approval of Welsh Office, Ministry of Housing and Local Government.

HENRY J. DICKMAN,
Clerk of the Council.

8-10 Picton Place,
Haverfordwest,
Pembs.
29th November, 1961.

MANCHESTER CORPORATION WATERWORKS.

TENDERS invited for the SUPPLY and DELIVERY of approx. 100 tons of HIGH-TENSILE FABRIC REINFORCEMENT in flat sheets.
Tender Forms (returnable by 3rd JANUARY, 1962) and Specification, etc., obtainable from the SECRETARY, Waterworks Offices, Town Hall, Manchester, 2.

MANCHESTER CORPORATION WATERWORKS.

TENDERS invited for One 1 cu. yd. capacity POWER LOADING SHOVEL with controlled Forward and Rear Discharge, powered by Fordson Diesel Engine, for delivery in Manchester.
Schedule, Conditions, etc., and Form of Tender (returnable by 3rd JANUARY, 1962) obtainable from the SECRETARY, Waterworks Offices, Town Hall, Manchester, 2.

CONTRACTS

NORTHAMPTONSHIRE COUNTY COUNCIL.

ROADS AND BRIDGES COMMITTEE.

ANNUAL TENDERS.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS and SERVICES for 12 months commencing 1st April, 1962:

No. Material or Service.
(1) Dry Broken Stone and Slag and Tar Coated Chippings (for Surface Dressing).
(2) Ready Mixed Concrete.
(2a) Lean Mix Concrete.
(3) Washed Gravel, Sand and Pit Gravel.
(4) Granite Setts.
(5) Precast Concrete Kerbs and Slabs.
(6) Road Tar.
(7) Tar and Bitumen Compounds.
(8) Bituminous Emulsions.
(9) Rapid Hardening and Portland Cement.
(10) Glazed Socket Drainpipes and Fittings and Concrete Tubes.
(11) Lubricating Oils and Grease.
(12) Petrol, Derv, Gas Oil and Paraffin.
(13) Steam Coal and Gas Coke.
(14) Cast-iron Gulley Grates and Frames, Offlet Kerbs, Manhole Covers and Frames.
(16) Mechanical Haulage.
(17) Tools.
(18) Traffic Signs and Posts.
(19) Tarred and Bitumen Macadam and Fine Cold Asphalt—Supply only and/or Supply and Lay.
(20) Hot Rolled Asphalt—Supply and Lay.
(21) Plastic White Lines—Supply and Lay.
(21a) Plastic White Line Material, Supply only.
(22) Reflecting Roadstuds—Laying of.
(23) Heating and Planing.
(24) Gulley Emptying.
(25) Timber and Chain Link Fencing—Supply and/or Supply and Erection; Quickthorn Hedges—Supply and Planting.
(26) Hot Surface Dressing of Carriageways and Footpaths.
(26a) Hot Surface Dressing of Carriageways with Filled Bitumen and Heated Chippings.
(27) Cold Surface Dressing of Carriageways.

Further particulars, Specifications and Forms of Tender may be obtained from the County Surveyor, County Offices, Guildhall Road, Northampton, and must be submitted to the undersigned by not later than 8th JANUARY, 1962.

J. ALAN TURNER,
Clerk of the County Council.

County Hall,
Northampton.
December, 1961.

NORTHUMBERLAND COUNTY COUNCIL.

COUNTY SURVEYOR'S DEPARTMENT.

COLDSTREAM BRIDGE, A.698.

SUPPLYING AND LAYING OF HOT ROLLED ASPHALT.

TENDERS are invited for the SUPPLY and LAYING of HOT ROLLED ASPHALT, comprising approx. 1,750 sq. yd. of Base Course and 1,700 sq. yd. of Wearing Course, with Mastic Asphalt Channels and Footpaths, at the ABOVE SITE.

Form of Tender, Specification and Bill of Quantities may be had on application to the County Surveyor, Phoenix House, Queen Street, Newcastle upon Tyne, 1, envelopes to be endorsed "Application for Tender Form."

The closing date for the receipt of Tenders will be 9 a.m. on the 8th JANUARY, 1962.

E. P. HARVEY,
Clerk of the County Council.

COUNTY BOROUGH OF GATESHEAD.

WHITEHOUSE LANE—CONSTRUCTION OF PLAYING FIELDS.

TENDERS are invited for the LEVELLING, FILLING OF MINE SHAFT, SOILING, CULTIVATION and SEEDING of approx. 21 acres of PLAYING FIELDS, including Drainage, Water Supply, Fencing, Car Park, and ancillary work.

Tender documents may be obtained from the Borough Surveyor, Swinburne Street, Gateshead, 8, upon payment of a refundable deposit of £2.

Tenders must be delivered to the undersigned not later than 12 Noon, 5th JANUARY, 1962.

C. D. JACKSON,
Town Clerk.

Town Hall,
Gateshead, 8.

BOROUGH OF LLANELLY.

TENDERS are invited for the CONSTRUCTION of 23 SINGLE and 11 DOUBLE OUTBUILDINGS (total 34) on the CEFNCAEAU NORTH HOUSING SITE.

The work comprises the Demolition of the existing Outbuildings in 4½in. Brickwork, with Reinforced Concrete Roofs, and the Erection of New Outbuildings in 4½in. Faced Brickwork, with Corrugated Asbestos Roofs.

Building contractors wishing to tender should please submit their names, together with a deposit of £2 2s., to R. J. BIRCHALL, A.R.I.B.A., Borough Architect, No. 5 Goring Road, Llanelly, Carms. (deposit returnable upon receipt of a bona-fide Tender which is not withdrawn) not later than the 20th DECEMBER, 1961, following which the necessary documents will be forwarded.

The Council does not bind itself to accept the lowest or any Tender.

S. SAMUEL,
Town Clerk.

Town Hall,
Llanelly.
30th November, 1961.

CITY OF LEICESTER.

TO BUILDERS AND CONTRACTORS.

Contractors wishing to TENDER on a Fixed-price Basis for ANY or ALL of the FOLLOWING CONTRACTS are asked to submit their names to the undersigned, together with the names of the Contracts. Bills of Quantities are being prepared and will be forwarded in due course (R.I.B.A. Conditions of Contract as adapted for Local Authorities):

Home for 52 Old People — Goodwood Estate, Leicester.
Home for 46 Old People — New Parks Estate, Leicester.
Fire Station (for three appliances)—New Parks Estate, Leicester.
Youth Wing to Community Centre—Thurnby Lodge Estate, Leicester.

J. H. LLOYD OWEN,
City Architect.

Halford House,
Charles Street,
Leicester.

CONTRACTS

BOROUGH OF WILLESDEN.

ANNUAL CONTRACTS.

TENDERS are invited for the UNDERMENTIONED ITEMS for a period of 12 months ending 31st March, 1963:

(1) Cement and Lime.
(2) Sand, Ballast and Shingle.
(3) Tarmacadam, Bituminous Macadam and Cold Asphalt.
(4) Manhole Covers and Frames.
(5) Stoneware Pipes.
(6) I.C.I. Paints and Distempers.
(7) Ready Mixed Concrete.

Particulars and Forms of Tender can be obtained from the Borough Engineer, Town Hall, Dyne Road, Kilburn, N.W.6, and must be returned not later than MONDAY, 8th January, 1962.

(Signed) R. S. FORSTER,
Town Clerk.

Town Hall,
Dyne Road,
Kilburn, N.W.6.
28th November, 1961.

BOROUGH OF PORT TALBOT.

TRADITIONAL HOUSING PROGRAMME.

The CORPORATION invite TENDERS for the ERECTION of 100 DWELLINGS at BAGLAN, Port Talbot.

Plans and Specification may be obtained from G. V. GRIFFITHS, A.M.I.C.E., Borough Engineer, Municipal Buildings, Port Talbot, on payment of a deposit of £2 2s. which will be returned on receipt of a bona-fide Tender not subsequently withdrawn.

The contractor whose Tender is accepted will be required to enter into a Bond of Security with a bank, insurance company, or other form of surety approved by the Corporation.

Tenders, sealed and endorsed "100 Dwellings—Baglan," to be delivered to the undersigned not later than 12 Noon, 16th JANUARY, 1962.

The Corporation do not bind themselves to accept the lowest or any Tender.

W. KING DAVIES,
Town Clerk.

Municipal Buildings,
Port Talbot.
30th November, 1961.

CITY OF BATH.

CONTRACTS AND SUPPLIES—
1ST APRIL, 1962, TO 31ST MARCH, 1963.

No. Description
(1) Tarmacadam and Bitumen Macadam.
(2) Crushed Limestone Aggregate, including All-in Aggregate for Concrete and Clean Quarry Fines.
(3) Wet-mix Foundation Ballast.
(4) Natural Gravel All-in Aggregate.
(5) Fine Aggregate for Concrete.
(6) Bristol Grit and/or Hardstone Chippings for Road Gritting.
(7) Hardstone Chippings.
(8) Supply and Application of Tar Bitumen Compound for Surface Dressing.
(9) Supply and Application of Hot Bitumen for Surface Dressing.
(10) Heating and Planing Road Surfaces.
(11) Supplying and/or Laying Fine Cold Asphalt.
(12) Supply and Laying Hot Rolled Asphalt.
(13) Supplying Cold Bitumen Emulsion.
(14) Precast Concrete Flags—Hardstone Aggregate.
(15) Concrete Kerbs and Channels — Hardstone Aggregate.
(16) Pennant Stone Flags.
(17) Pennant Stone Kerbs.
(18) Reinforcement Mesh for Concrete.
(19) Cast-Iron Manhole Covers and Frames, Road Gully Gratings and Frames.
(20) Coal Cellar Covers and Frames (Cast Iron).
(21) Building Sand.
(22) Lime Mortar.
(23) Portland and Rapid Hardening Cement.
(24) Ready Mixed Concrete.
(25) Glazed Stoneware Pipes.
(26) Concrete Gully Pots.
(27) Street Name Plates.
(28) Traffic Signs, Posts and Fittings, Steel Islands.
(29) Illuminated Bollards and Lighting Equipment.
(30) Rebristling of Rotary Brushes.
(31) Weedkiller.
(32) Pickshafts, Broom Handles and Shovels.
(33) Refuse Skips.
(34) Protective Clothing.
(35) Petrol, Diesel and Paraffin Oils.
(36) Starter Batteries.
(37) Sparking Plugs and Anti-Freeze Liquid.
(38) Motor Tyres and Tubes.
(39) Baling Wire.
(40) Street Seats.
(41) Mechanical Plant Hire, etc.
(42) Low Voltage Electric Cables.
(43) Electric Discharge Lamps.
(44) Tungsten Lamps and Electrical Fittings.
(45) Steel and Concrete Columns for Street Lighting.
(46) Lanterns for Street Lighting.
(47) Control Gear and Capacitors for Street Lighting.
(48) Time Switches for Street Lighting.
(49) Dustbins.
(50) Paints and Painting Materials.
(51) Paint Brushes.
(52) Wallpapers.
(53) Copper Tubing and Fittings.
(54) Spun-Iron Pipes and Special Castings.
(55) Valves and Hydrants.
(56) Cast-Iron Surface Boxes.
(57) Water Main Trench Excavation and Pipe Laying.
(58) Stop Cocks and Ferrules.
(59) Lead Pipe and Pig Pipes.
(60) Solder.
(61) Stop Cock Trunks.

Schedules, Forms of Tender, Conditions of Contract, etc., may be obtained upon application to the City and Waterworks Engineer, Guildhall, Bath. Contractors should state which particular Schedule or Schedules are required. Tenders, in the official envelope provided, which must not bear any mark or identity of the senders, should be delivered to the undersigned not later than 10th JANUARY, 1962.

JARED E. DIXON,
Town Clerk.

NORTHWICH URBAN DISTRICT COUNCIL.

SUPPLY OF TIMBER.

TENDERS are invited for the SUPPLY and DELIVERY of TIMBER for the year 1962.

Copies of the Specification can be obtained from the Engineer and Surveyor, Council House, Northwich.

Tenders, in plain sealed envelope endorsed "Supply of Timber," should reach the undersigned not later than Noon on SATURDAY, 16th December, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

H. D. HOCKING,
Clerk of the Council.

The Council House,
Church Road,
Northwich.

CONTRACTS

BOROUGH OF MAIDENHEAD.

ANNUAL TENDERS, 1962-63.

The COUNCIL invites TENDERS for the SUPPLY of the FOLLOWING MATERIALS or SERVICES for the year ending 31st March, 1963:—

Tarmacadam, Tar Paving.
Tar, Tar Compounds and Bitumen.
Sand, Gravel, Shingle and Concrete Aggregate.
Precast Concrete Kerbs, Channels, Paving Slabs, etc.
Broken Granite.
Cast-Iron Goods.
Hire of Transport.
Gang Mowing, etc.—Parks and Open Spaces.

Particulars and Forms of Tender, in an envelope endorsed "Annual Tenders," may be obtained from C. T. READ, Borough Engineer and Surveyor, New Town Hall, St. Ives Road, Maidenhead. Tenders, in plain sealed envelopes, endorsed "Tender for Materials, etc.," but bearing no distinguishing mark indicating the sender, are to be delivered to me not later than FRIDAY, 12th January, 1962.

STANLEY PLATT,
Town Clerk.

Guildhall,
Maidenhead.
December, 1961.

URBAN DISTRICT COUNCIL OF RAYLEIGH.

ANNUAL TENDERS.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING MATERIALS during the period commencing 1st April, 1962, and ending 31st March, 1963:—

Tar Coated Gravel.
Tarmacadam.
Cold Asphalt.
Cold Bitumen Emulsion.
Sand.
Grit.
Shingle.
Stone.
Ballast.
Hoggin.
Clinker.
Ashes.
Kerbs.
Paving Slabs.
Brick Hardcore.

General Conditions and Form of Tender may be obtained from Mr. W. F. HOWLETT, M.I.Mun.E., Engineer and Surveyor, Council Offices, Rayleigh, and all applications for same must state the materials for which it is proposed to tender.

Tenders, in sealed envelopes, bearing no name or mark indicating the sender, endorsed "Annual Tenders," must reach the undersigned not later than 12 Noon on MONDAY, 1st January, 1962.

The Council does not bind itself to accept the lowest or any Tender, and reserves the right to accept whole or part of any Tender.

C. E. FITZGERALD,
Clerk of the Council.

Council Offices,
Hockley Road,
Rayleigh, Essex.

CHIGWELL URBAN DISTRICT COUNCIL.

TENDERS invited for Annual Contracts for SUPPLY of MATERIALS and SERVICES during period 1st April, 1962, to 31st March, 1963, comprising the FOLLOWING:

(1) Tarred Macadam.
(2) Bitumen Macadam.
(3) Bitumen Macadam—Supply and Lay by machine.
(4) Cold Asphalt—Supply.
(5) Road Tar—pressure sprayed on roads.
(6) Tar and Bituminous Compounds—pressure sprayed on roads.
(7) Cold Bituminous Emulsion—Supply.
(8) Granite Chippings.
(9) Clinker.
(10) Breeze.
(11) Portland Cement—Ordinary and Rapid Hardening.
(12) Washed Ballast Aggregate.
(13) Sand (Gritting).
(14) Ready Mixed Concrete.
(15) Precast Concrete Kerb and Edging.
(16) Brushes (Lacre sweeper-collector machine).
(17) Hire of Steam, Petrol and Diesel Rollers.
(18) Emptying and Resealing Gullies.
(19) Hire of Motor Lorries.
(20) Tyres—Supply.

Conditions and brief Specification obtainable by sending stamped addressed foolscap envelope to Engineer and Surveyor, Council Offices, Loughton, Essex.

Tenders, in sealed envelope (provided and already endorsed) not indicating sender, to be delivered to the CLERK OF THE COUNCIL (address as above) by 15th JANUARY, 1962.

The Council does not bind itself to accept the lowest or any Tender, nor as to amount of any Contract, and reserves the right to divide any Contract.

GREAT OUSE RIVER BOARD.

TENDERS are invited for the FOLLOWING CIVIL ENGINEERING WORKS to be constructed during the financial year 1962/63:

(1) Brampton.
The work consists of the Construction of a Reinforced Concrete Gauging Weir on the Alconbury Brook at the Brampton Race-course in Huntingdonshire. The work includes the Excavation of approx. 1,100 cu. yd. of Spoil, the Placing of 2,150 cu. ft. of Reinforced Concrete, the Construction of a Float Well and Recorder House, together with ancillary works.
(2) Chesterford Mill.
The work consists of the Construction of a Reinforced Concrete Spillway at Great Chesterford Mill in Essex. The work includes the Excavation of approx. 1,100 cu. yd. of Spoil, the Importing and Compacting of approx. 230 cu. yd. of Hoggin, and the Placing of 3,150 cu. ft. of Reinforced Concrete, together with ancillary works.

Copies of the Contract documents and Drawings for the works may be obtained from the Engineer of the Board, at the address given below, on payment of a deposit of £5 5s. for each Contract (cheques to be made payable to the Great Ouse River Board) which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn, and on the return of all documents and drawings.

Separate Tenders, enclosed in the addressed envelopes provided, must be received by me not later than 12 Noon on MONDAY, 8th January, 1962.

K. M. RODDIS,
Clerk of the Board.

Elmhurst,
Brooklands Avenue,
Cambridge.
1st December, 1961.

CONTRACTS

WORCESTERSHIRE COUNTY COUNCIL.

BRISTOL-BIRMINGHAM MOTORWAY.

TENDERS are invited from experienced contractors for the SUPPLY, ERECTION, WIRING and TESTING of OVERHEAD LIGHTING COLUMNS on the ABOVE MOTORWAY JUNCTIONS and SERVICE AREAS.

The Contract is for 76 Steel Columns and 95 Lanterns.

Tender documents can be obtained from the County Surveyor, County Buildings, Worcester, to whom Tenders must be delivered not later than Noon, 12th JANUARY, 1962.

W. R. SCURFIELD,
Clerk of the County Council.

LONDON COUNTY COUNCIL.

ROMAN ROAD—IMPROVEMENT.

TENDERS are invited from contractors having considerable experience of large road construction works for the WIDENING of ROMAN ROAD, Bethnal Green, between Bacton Street and Cranbrook Terrace.

Form of Tender, Specification, etc., and Drawings are obtainable from the Chief Engineer upon payment of £5 by crossed cheque or order made payable to the London County Council, which will be returned only if a bona-fide Tender is submitted and not subsequently withdrawn.

Contract and other relevant documents may be inspected on personal application at Room 450D, County Hall, before payment of fee. Remittance by post should be addressed to the Chief Engineer, County Hall, Westminster Bridge, S.E.1.

No Tender received by the CLERK OF THE COUNCIL after 3 p.m. on MONDAY, 8th January, 1962, will be considered.

The Council does not bind itself to accept the lowest or any Tender.

BOROUGH OF BRENTFORD AND CHISWICK.

TENDERS.

The COUNCIL invite TENDERS for the SUPPLY of MATERIALS, etc., for 12 months commencing 1st April, 1962:—

(1) Aggregate Sands and Gritting Sands.
(2) Bulk Commercial Motor Spirit, Diesel Oil, Paraffin and Fuel Oil.
(3) Cement.
(4) Drysaltery.
  (a) Paints and Building Accessories.
  (b) Paint Brushes and Brooms.
  (c) Sanitary Paper.
(5) Ironmongery (including Manhole Covers and Gully Grates).
(6) Motor Lorry Hire.
(7) Precast Concrete Flags.
(8) Stationery, etc.
(9) Protective Clothing.
(10) Coal, Coke and Smokeless Fuel.

Proposals must be made upon and be strictly in accordance with the Forms of Tender which are obtainable from the undersigned, at the Town Hall, Chiswick, W.4. Tenders, endorsed "Tender for ——" (as the case may be), must be delivered at my Office not later than 12 Noon on FRIDAY, 12th January, 1962, in a sealed envelope, which shall not bear any name or mark indicating the sender.

The Council do not bind themselves to accept the lowest or any Tender.

W. F. J. CHURCH,
Town Clerk.

Town Hall,
Chiswick, W.4.

NESTON URBAN DISTRICT COUNCIL.

WEST VALE SEWERAGE.

FIXED-PRICE TENDERS are invited from experienced contractors for the ABOVE CONTRACT, to be carried out in the Urban District of NESTON, Wirral.

The work comprises the Laying of some 900yd. of Glazed Stoneware and Concrete Sewers from 6in. to 21in. dia., together with Manholes, etc.

Application for the Specification and Bill of Quantities, together with an additional set of the latter only for the contractors' retention, should be made to the Council's Consulting Engineers, MESSRS. WARD, ASHCROFT AND PARKMAN, 38 The Temple, Dale Street, Liverpool, 2, together with a deposit cheque for £3 3s., made payable to the Neston Urban District Council, and returnable upon receipt of a bona-fide Tender completely priced.

Drawings may be inspected either at the Offices of the Consulting Engineers or at the Council Offices during the usual office hours.

Tenders, in plain sealed envelopes clearly marked "West Vale Sewerage," must be delivered to the undersigned not later than SATURDAY, 30th December, 1961, and should be accompanied by the names and addresses of two Engineers for whom similar work has been carried out.

The Council does not bind itself to accept the lowest or any Tender, and will not defray any expenses incurred by those tendering.

F. H. D. HARTMAN,
Clerk of the Council.

Town Hall,
Neston,
Wirral, Ches.
December, 1961.

EAST GRINSTEAD URBAN DISTRICT COUNCIL.

ANNUAL TENDERS FOR SUPPLIES AND SERVICES.

FIXED-PRICE TENDERS are invited for the UNDERMENTIONED, covering the financial year commencing 1st April, 1962:

(1) Shingle, Sand, Grit and Ashes.
(2) Portland Cement.
(3) Scavenger Brooms.
(4) Boiler Suits, Bib and Brace Overalls, Jacket and Trouser Suits, Waterproof Clothing, Gloves and Rubber Boots.
(5) Coke.
(6) Petrol, Paraffin, Diesel and Vaporising Oil and Domestic Fuel Oil.
(7) Surface Dressing—Carriageways.

Forms of Tender may be obtained on application to J. GREAVES, A.M.I.Mun.E., Surveyor to the Council, at the undermentioned address, and applications, stating reference numbers of items for which forms are required, must be accompanied by a stamped addressed foolscap envelope.

No Tender will be received unless it is sent in a plain sealed envelope, without any name or mark indicating the sender, endorsed in the top left-hand corner "Tender for ——," and is delivered to me, the undersigned, by not later than Noon on FRIDAY, 29th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

H. C. JONES,
Clerk of the Council.

Council Offices,
East Court,
East Grinstead,
Sussex.

CONTRACTS

BOROUGH OF RICHMOND (SURREY).

CONTRACT No. 1.—ARLINGTON ROAD PRIVATE STREET WORKS.—The Making-up of Arlington Road, approx. 170yd. in length. The works consist of 24ft. wide Carriageway in 9in. of Hardcore, 2in. of Bitumen Macadam Base Course and ¾in. Fine Cold Asphalt Wearing Course; Two 6ft. wide Footways in Artificial Stone Paving and Concrete Footway Crossings; Precast Concrete Kerb; Scoriae Block Channel and ancillary works.

CONTRACT No. 2.—SANDY LANE.
(i) Improvement from Meadlands Drive to Ham Street.
(ii) Footway Works between Arlington Road and 241 Petersham Road.

The works consist of.—
(i) The Widening of Sandy Lane from Meadlands Drive to Ham Street, a distance of approx. 420yd., including Clearing the Site of certain Walls, Fences, Trees and General Excavation, the Construction of new Boundary Walls and Fences; 260yd. of Surface Water Sewer, together with Precast Concrete Manholes; 22ft. wide Carriageway in 9in. of Hardcore, 2in. of Hot Rolled Asphalt Base Course, and 1¼in. of Rolled Asphalt Wearing Course with Precoated Chippings; Two 6ft. wide Footways in Artificial Stone Paving and Concrete Footway Crossings; Grass Verges; Precast Concrete Kerb; Gullies; Erection of Street Lighting Columns, and ancillary works.
(ii) Approx. 340 lin. yd. of 6ft. wide Footway in Artificial Stone Paving and Concrete Footway Crossings.

CONTRACT No. 3.—The Carrying out of Contracts Nos. 1 and 2 as One Contract.

Experienced contractors wishing to tender for any or all three contracts may inspect Drawings and on written application obtain tender documents from the Borough Engineer and Surveyor, King's Road, Richmond, Surrey.

Tenders, in plain envelopes provided, and endorsed as appropriate, "Tender for Contract No. 1—Arlington Road," "Tender for Contract No. 2—Sandy Lane," "Tender for Contract No. 3—Arlington Road/Sandy Lane," must be delivered to the undersigned not later than Noon on FRIDAY, December 29th.

The Council does not bind itself to accept the lowest or any Tender.

CLIFFORD HEYWORTH,
Town Clerk.

Town Hall,
Richmond, Surrey.
2nd December, 1961.

BOROUGH OF NUNEATON.

STREET LIGHTING.

FIXED-PRICE TENDERS are invited for ERECTING 276 STEEL COLUMNS and WIRING 33 60-W SODIUM LAMPS, 21 45-W SODIUM LAMPS and 32 100-W TUNGSTEN LAMPS. Columns, Lanterns and Lighting Equipment to be supplied by the Corporation.

Contract documents can be obtained from the Borough Surveyor, Council House, Nuneaton, on deposit of Two Guineas, returnable on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders must be sent to me by 10 a.m. on WEDNESDAY, 3rd January, 1962.

A. A. CRABTREE,
Town Clerk.

December, 1961.

DEPTFORD BOROUGH COUNCIL.

TENDERS are invited for the FOLLOWING for the 12 months commencing 1st April, 1962:—
(a) Uniform and Protective Clothing and Footwear.
(b) Paving Materials (including Tarmacadam, Bituminous Macadam, Cold Asphalt, Sand, Ballast, etc.).
(c) Stoneware Drainpipes, Gullies, etc.

Forms of Tender from the Borough Engineer, Deptford Town Hall, S.E.14.

Tenders, enclosed in a plain sealed envelope, and endorsed "Tender for ——," to be received by the TOWN CLERK not later than 4 p.m. on MONDAY, 15th January, 1962.

The Council does not bind itself to accept the lowest or any Tender.

BOROUGH OF MAIDSTONE.

WIDENING OF FARLEIGH LANE.

TENDERS are invited for the WIDENING and PROVISION of SURFACE WATER DRAINAGE at FARLEIGH LANE over a length of approx. 350yd.

All documents from the Borough Engineer, Palace Avenue, Maidstone.

Tenders must reach me by 10 a.m., 1st JANUARY, 1962.

T. SCHOLES,
Town Clerk.

CAMBORNE - REDRUTH URBAN DISTRICT COUNCIL.

TENDERS FOR MATERIALS AND SERVICES, 1962-63.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS and SERVICES for the year ending 31st March, 1963:—

Schedule No.	Description
(1)	Screws, Bolts and Nuts.
(2)	Paints and Glass.
(3)	Horse Haulage.
(4)	Protective Clothing (Jackets, Trousers, Coats, Leggings, Overalls, Rubber Boots).
(5)	Mechanical Haulage.
(6)	Shovels, Brushes, Small Plant and Tools.
(7)	Sanitary Ware and Fittings.
(8)	Stoneware Pipes and Fittings.
(9)	Galvanised Tubes and Fittings.
(10)	Cement, Lime and other Building Materials.
(11)	Asbestos Rainwater Goods.
(12)	Roofing Tiles.
(13)	Ironmongery.
(14)	Copper Tubing and Fittings.
(15)	Roadstone.
(16)	Road Binders and Dressings.
(17)	Disinfectant and Miscellaneous Sanitary Requisites.
(18)	Petrol, Oils and Greases.
(19)	Tyres and Inner Tubes.
(20)	Stationery.
(21)	Coffins and Funeral Arrangements.
(22)	Timber, Doors and Windows.
(23)	Concrete Blocks.
(24)	Electrical Equipment and Fittings.
(25)	Manhole Frames and Covers, etc.

Forms of Tender, Specifications and Conditions of Contract can be obtained from the undersigned, to whom completed Tenders should be returned not later than 10 a.m. on SATURDAY, the 27th January, 1962.

S. C. WILSON,
Clerk to the Council.

1st December, 1961.

CONTRACTS

SOKE OF PETERBOROUGH COUNTY COUNCIL.

ROADS AND BRIDGES DEPARTMENT.

TENDERS are invited for the SUPPLY and DELIVERY of the UNDERMENTIONED MATERIALS and SERVICES during year ending 31st March, 1963:

(1) Broken Granite and Slag.
(2) Tarred Granite, Slag and Gravel.
(3) Bitumen Macadam.
(4) Precoated and Lightly Coated Chippings (slag and granite).
(5) Hot Rolled Asphalt (supply and lay).
(6) Wetmix.
(7) Leanmix.
(8) Local Stone.
(9) Filling.
(10) Sand and Gravel.
(11) Concrete Kerbs, Channels, Path Edging and Flags.
(12) Concrete Tubes.
(13) Concrete Pipes (porous).
(14) Hollow Concrete Blocks.
(15) Cement.
(16) Glazed Stoneware Pipes and Gullies.
(17) Cast-Iron Covers and Gulley Grids and Frames.
(18) Hire of Mechanical Rollers and Barber-Greene Machine.
(19) Heating and Planing Work.
(20) Tar Compounds, Refined Tar and Cold Emulsions.
(21) Surface Dressing.
(22) Supply and Delivery of Ready Mixed Concrete.
(23) Granite Setts.
(24) Supplying and Laying Catseye Reflecting Roadstuds.
(25) Laying Plastic White Lines.
(26) Ground Rock Salt for snow clearance.
(27) Metal Guardrails (Highway).

Further particulars, together with Tender Forms and Specifications can be obtained on application to the County Surveyor, County Offices, Bridge Street, Peterborough. Applications, by post, should be accompanied by a stamped addressed foolscap envelope.

Tenders must be forwarded to me, the undersigned, in a plain sealed envelope bearing no indication as to the sender, not later than 10 a.m. on SATURDAY, 6th January, 1962.

Neither the lowest nor any Tender will necessarily be accepted.

ERIC P. SMITH,
Clerk of the County Council.

County Offices,
Bridge Street,
Peterborough.

COUNTY BOROUGH OF PRESTON.

HEALTH CENTRE—BROOK STREET, PRESTON.

TENDERS are invited for the ERECTION of the ABOVE.

Drawings may be inspected at the Offices of the Borough Engineer and Surveyor, Municipal Building, Preston, from whom Bills of Quantities may be obtained on payment of a deposit of £2 2s., returnable on receipt of a bona-fide Tender.

Tenders must be returned to the undersigned not later than 10 a.m. on FRIDAY, 5th January, 1962.

W. E. E. LOCKLEY,
Town Clerk.

Municipal Building,
Preston.

BOROUGH OF TAUNTON.

TENDERS are invited for the SUPPLY of (a) CEMENT, and (b) GALVANISED PIPES and Fittings for a period of one year commencing 1st January, 1962.

Forms of Tender, with Conditions to be observed, can be obtained from the Town Clerk, Municipal Buildings, Taunton, to whom Tenders, on the prescribed form enclosed in an envelope provided, must be sent so as to be received not later than 30th DECEMBER, 1961.

K. A. HORNE,
Town Clerk.

Taunton.
6th December, 1961.

BOROUGH OF TAUNTON.

TENDERS are invited by 10 a.m., 1st JANUARY, 1962, for the CONSTRUCTION of a TARMACADAM SURFACED CAR PARK EXTENSION to the existing Canon Street Car Park—approx. 5,900 sq. yd.—and ancillary works.

Specification, Bill of Quantities and Form of Tender obtainable from Borough Engineer, St. Paul's House, Taunton.

K. A. HORNE,
Town Clerk.

URBAN DISTRICT COUNCIL OF SHOREHAM-BY-SEA.

COUNCIL HOUSING.

ERECTION OF A BLOCK OF FOUR OLD PERSONS' COTTAGE FLATS—WILMOT ROAD.

FIXED-PRICE TENDERS are invited for the ERECTION and COMPLETION of a BLOCK of FOUR OLD PERSONS' FLATS at WILMOT ROAD, Shoreham-by-Sea.

The Conditions of Contract and Drawings may be inspected, and the Specification, Bills of Quantities and Form of Tender may be obtained, at the Office of the Surveyor to the Council, W. H. FRASER, M.I.Mun.E., at St. Wilfrid's, Ham Road, Shoreham-by-Sea, Sussex.

Tenders must be delivered to the undersigned, in a plain sealed envelope, bearing no indication or mark as to the name and address of the sender, and endorsed "Flats—Wilmot Road," to arrive not later than 9 a.m. on 8th JANUARY, 1962.

The Council does not undertake to accept the lowest, or any, Tender.

R. H. DAVIES,
Clerk of the Council.

Town Hall,
Shoreham-by-Sea,
Sussex.

BEDFORDSHIRE EDUCATION COMMITTEE.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING to various establishments throughout the County:—
(a) Cleaning Materials, including Hardware, Brooms, Brushes, etc.
(b) Liquid and Powder Detergent.
(c) Liquid and Powder Disinfectant.
(d) Toilet Packets and Rolls.

Forms of Tender and Conditions of Contract may be obtained from the DIRECTOR OF EDUCATION, Shire Hall, Bedford, by 16th DECEMBER, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

CONTRACTS

SURREY COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

The above Council invite **TENDERS** for the FOLLOWING:

Maidstone-Guildford Road (A.25), between the Church and Laurence Lane, Buckland (approx. 600 lin. yd.)—Reshape Carriageway with Bituminous Material and Resurface.

Newdigate-Parkgate Road, (i) between Parkgate and Henfold Lane, Newdigate (approx. 1,900 lin. yd.), and (ii) from Marshland Farm to Tanhouse Farm, Newdigate (approx. 1,200 lin. yd.).

Leigh-Charlwood Road, between Mynthurst Bridge and North Lodge, Mynthurst (approx. 1,800 lin. yd.)—Widen and haunch with Lean-Mix Concrete and Reshape Carriageway with Bituminous Materials. Reconstruct Footways between Parkgate and Henfold Lane.

Documents from County Engineer, returnable by 19th DECEMBER, 1961, in plain sealed envelope endorsed "DH Division Contract," to CLERK OF THE COUNCIL, County Hall, Kingston-upon-Thames.

ABERGELE URBAN DISTRICT COUNCIL.

ABERGELE AND PENSARN SEWAGE DISPOSAL.

CONTRACT NO. 2.

Civil Engineering contractors possessing the necessary experience and plant, and wishing to TENDER for the CONSTRUCTION of the ABOVE WORKS at PENSARN, are invited to submit their names to the undersigned by 30th DECEMBER, 1961.

The work principally is reinforced concrete, involves the Construction of a Composite Pumping Station and Comminutor Chamber, a Three-compartment Ground Level Storage Tank of approx. 185,000 gallons capacity, a 21in. dia. Spun-iron Outlet Main including a crossing under the railway line, the Repair and Extension of the existing 21in. dia. Sea Outfall, together with certain ancillary works.

Applications must be accompanied by a brief list of contracts recently completed, with special reference to those both in deep excavation and of reinforced concrete construction.

The Contract documents, including Bills of Quantities, Specification, General Conditions, Forms of Tender and Drawings, will be forwarded to selected applicants in due course.

The work is to be carried out under the direction of the Council's Consulting Engineers, MESSRS. A. H. S. WATERS AND PARTNERS, of 25 Temple Row, Birmingham, 2, from whom further information can be obtained.

The Council does not bind itself to accept the lowest or any Tender.

EDWARD J. LLOYD,
Clerk of the Council.

Town Hall,
Pentre Mawr,
Abergele,
Denbighshire.

URBAN DISTRICT COUNCIL OF COULSDON AND PURLEY.

PRIVATE STREET IMPROVEMENT WORKS.

TUDOR CLOSE, OLD COULSDON.

TENDERS are invited for the ABOVE.

Bills of Quantities and Form of Tender may be obtained from H. M. COLLINS, M.I.C.E., upon deposit of £3 3s. which will be refunded upon receipt of a bona-fide Tender.

Plan, Specification and Conditions of Contract may be inspected at the Council Offices.

Sealed Tenders, in the envelope provided, and endorsed "Tudor Close," must be delivered to the undersigned not later than First Post on MONDAY, 1st January, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

ERIC F. J. FELIX,
Clerk of the Council.

Council Offices,
Purley, Surrey.
30th November, 1961.

SOUTHWELL RURAL DISTRICT COUNCIL.

RAINWORTH HOUSING SITEWORKS.

The above Council invite **FIXED-PRICE TENDERS** from experienced contractors for the CARRYING OUT of the FOLLOWING WORKS:

The Laying of 2,426yd. of Foul and Surface Water Sewers.
1,130yd. of Water Mains.
5,550 cu. yd. of Excavation for Roads; and
2,600 sq. yd. of Surfacing; together with all appurtenant works.

Copies of the Specification, Bills of Quantities and Form of Tender may be obtained from K. DYSON, A.M.I.Mun.E., Engineer to the Council, Council Offices, Westgate, Southwell, Notts., upon deposit of £2 2s. (by cheque made payable to Southwell Rural District Council) which will be refunded on receipt of a bona-fide Tender and the return of documents.

Drawings and General Conditions may be inspected at the Engineer's Offices during normal working hours.

Tenders, endorsed "Rainworth Siteworks," must be delivered, in plain sealed envelopes, to the undersigned not later than 10 a.m. on MONDAY, the 8th January, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

S. W. LYNDS,
Clerk to the Council.

Council Offices,
Westgate,
Southwell, Notts.
1st December, 1961.

WAKEFIELD AND DISTRICT WATER BOARD.

FIXBY FILTRATION SCHEME.

BUILDING WORKS CONTRACT.

TENDER documents are almost completed for this Contract, which will be for the CONSTRUCTION of R.C. FRAMED BUILDINGS of 13,000 sq. ft., including Finishes to Laboratory and Office Accommodation, an R.C. Lime Silo 50ft. high—13ft. internal dia., a pair of Detached Staff Houses, extensive Electrical Installation, and all other services.

Contractors with experience in this type of work, who wish to be considered by the Board for inclusion in the list of those who will be invited to tender, should write immediately to the ENGINEER AND MANAGER, 21 King Street, Wakefield.

It is hoped that work on this Contract will be commenced at the beginning of March.

Drawings, Specification and Bill of Quantities, which will be issued to selected contractors on the 18th December, 1961, must be completed and returned by 15th JANUARY, 1962.

CONTRACTS

DURHAM COUNTY COUNCIL.

ANNUAL CONTRACTS.

The Durham County Council invite **TENDERS** and **OFFERS** for the **SUPPLY** of the **FOLLOWING REQUISITES** and **SERVICES** during the year ending 31st March, 1963:—

Schedule No.

(1) Bitumen Macadam, Tarmacadam, Dense Tar Surfacing Materials and Dry Roadstone.
(2) Road Tar, Tar Compounds, Proprietary Compounds, Bitumen and Cold Emulsions.
(3) Coarse Aggregate and Fine Aggregate (Gravel and Sand).
(4) Precast Concrete Kerbs and Concrete Flags.
(5) Precast Reinforced Concrete Fencing and Safety Posts.

} These Tenders must be under seal.

(6) Portland Cement.
(7) Salt Glazed Ware Pipes and Fittings and Clayware Field Drain Pipes.
(8) Concrete Pipes.
(9) Cast-Iron Gullies, Manhole Covers and Frames.
(10) Wooden Post and Rail Fences and Gates.
(11) Road Traffic Signs and Bollards.
(12) Hire of Heavy Plant, including Road Rollers and Formwork.
(13) Hire of Mechanical Haulage.
(14) Hire of Mechanical Haulage for Snowploughing.
(15) Ready Mixed Concrete.
(16) Hard Burnt Red Shale.
(17) Fine Ashes.

SERVICES:

(18) Land Tractors for Snowploughing.
(19) Team Labour.
(20) Supply and Laying of Plastic White Lines.

Forms of Tender, General Conditions, Specifications and Undertakings for any of the above obtainable from the County Surveyor, Aykley Heads, Durham.

Tenders, in plain sealed envelopes, endorsed "Tender for ——," are to be delivered to the undersigned not later than Noon on 5th JANUARY, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

J. T. BROCKBANK,
Clerk of the County Council.

Shire Hall,
Durham.
1st December, 1961.

BOROUGH OF AYLESBURY.

PRESSURE GROUTING OF CONCRETE SLABS— WEEDON ROAD.

FIXED-PRICE TENDERS are invited from specialist contractors for the **PRESSURE GROUTING** of **CONCRETE SLABS** and Sealing of Joints.

The work involves the Drilling and Grouting of approx. 280 Grout Holes, and Raking Out and Sealing of approx. 1,650 lin. yd. of Joints.

Plans and Conditions of Contract may be seen at, and Specification and Bills of Quantities obtained from, the Office of the Borough Engineer and Surveyor, Friarscroft, 3 Oxford Road, Aylesbury, upon payment of a deposit of Two Guineas, returnable on receipt of a bona-fide Tender.

Tenders, in a plain sealed envelope endorsed "Pressure Grouting—Weedon Road," must be delivered to the undersigned not later than Noon on THURSDAY, 28th December, 1961.

R. D. W. MAXWELL,
Town Clerk.

Town Hall,
Aylesbury.

CITY OF WORCESTER.

ANNUAL TENDERS, 1962-63.

TENDERS are invited for the **SUPPLY** of the **FOLLOWING ITEMS** for the year ending the 31st March, 1963:—

(1) Cement.
(2) Concrete Flags, Kerbs, etc.
(3) Crushed Gravel and Sand.
(4) Granite Chippings.
(5) Bitumen Macadam and Fine Cold Asphalt.
(6) Builders' Sundries and Ironmongery.
(7) Painters' Sundries.
(8) Petrol and Fuel Oils.
(9) Engineering Bricks.
(10) Salt.
(11) Cast-Iron Covers and Frames.
(12) Salt Glazed Ware Pipes and Fittings and Concrete Gully Pots.

Specifications and Tender Forms obtainable from City Engineer and Surveyor, 22 Bridge Street, Worcester.

Tenders must be posted to the Town Clerk, Guildhall, Worcester, to be received not later than 22nd JANUARY, 1962.

BERTRAM WEBSTER,
Town Clerk.

ASHFORD (KENT) URBAN DISTRICT COUNCIL.

TENDERS are invited for the **CONSTRUCTION** of **CONCRETE ACCESS ROADS** and **BASES FOR BATTERIES OF GARAGES** on **FOUR SITES** within the Urban Area.

Tender documents may be obtained from the Surveyor, 1 Elwick Road, Ashford, Kent, and must be returned to the undersigned not later than Noon on MONDAY, 18th December, 1961.

G. H. REDFERN,
Clerk of the Council.

ETON RURAL DISTRICT COUNCIL.

EXTERNAL REPAINTING OF COUNCIL HOUSES.

1962 PROGRAMME.

Established contractors possessing suitable organisation, adequate labour and plant, and who are willing to **TENDER** for the **ABOVE WORKS**, are invited to submit their names, together with full details of not less than three similar contracts they have carried out.

From the names submitted, a panel of contractors will be chosen, who will subsequently be provided with a Specification on which to tender.

Contracts will be awarded on the basis of a fixed price, i.e., not subject to fluctuation, in respect of either wages or materials.

The programme covers large and small groups of dwellings in various parishes of the Rural District. Tenders may be submitted for one or more groups.

Work on each group is to commence within 21 days of the written order, and all work to be completed within the time stated on the Form of Tender.

Applications should be made, in writing, to the Housing Manager, Council Offices, Windsor Road, Slough, Bucks., not later than FRIDAY, the 22nd December, 1961.

D. P. HARRISON,
Clerk to the Council.

CONTRACTS

CORNWALL COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

TENDERS are invited for the **FOLLOWING** during the year ending 31st March, 1963:

(1) Motor Haulage.
(2) Road Tar.
(3) Bitumen and Bitumen Emulsions.
(4) Spraying Roads with Bitumen and Bitumen Emulsions.
(5) Ready-Mixed Concrete.
(6) Tools and General Stores.
(7) Gulley Gratings, Weirs and Manhole Covers.
(8) Traffic Signs.
(9) Concrete Paving Slabs, Kerbs, Pipes, Blocks, Fence Posts and Sand.
(10) Bricks and Salt Glazed Ware Pipes and Gullies.
(11) Portland Cement.
(12) Fuel Oils, Burning Oils and Vaporising Oils.
(13) Rubber Tyres and Tubes, Tyre Remoulds and Batteries.
(14) Adhesion Additives for use in tar and bitumen.
(15) Weedkiller.
(16) Hedge Trimming.
(17) Plastic White Line Composition.

Specifications and Forms of Tender may be obtained from the County Surveyor, County Hall, Truro.

Tenders, in envelopes clearly endorsed with the item tendered for, but not indicating the sender, should be addressed to the undersigned, Room 3, County Hall, Truro, and must be delivered not later than MONDAY, the 8th January, 1962. Tenders received after this date will not be considered. A decision will be given within two months thereof.

The Council do not bind themselves to accept the lowest or any Tender.

E. T. VERGER,
Clerk of the County Council.

County Hall,
Truro.
1st December, 1961.

STAFFORDSHIRE COUNTY COUNCIL.

AMBULANCE SERVICE.

TENDERS are invited for the **SUPPLY** of the **UNDERMENTIONED ARTICLES** of **UNIFORM CLOTHING** to the approx. numbers stated:—

(1) Trousers, 546.
(2) Skirts, 14.
(3) Tunics, 285.
(4) Lightweight Jackets, 290.
(5) Caps, 265.
(6) Greatcoats, 120.
(7) Raincoats, 140.
(8) Shirts (White), 1,100.
(9) Ties, 1,100.

Forms of Tender, which can be obtained from the County Medical Officer of Health, Martin Street, Stafford, should, after completion, be sent in a sealed envelope not bearing any name or identity of the sender, and endorsed "Ambulance Uniforms," to the undersigned not later than 12 Noon, MONDAY, 18th December, 1961.

T. H. EVANS,
Clerk of the County Council.

County Buildings,
Stafford.

BOROUGH OF STRATFORD-UPON-AVON.

TENDER FOR STORES.

TENDERS are invited for the **SUPPLY** and **DELIVERY** of the **FOLLOWING MATERIALS** for the 12 months commencing 1st April, 1962:

(1) Cement, Sand, Gravel, Ashes.
(2) Disinfectants, Weed Killers.
(3) Flushing Cisterns, Pans (W.C.), Seats (W.C.).
(4) Dusters, Wiping Cloths, Chamois Leathers, Mops, Stockinette, Polish, Soaps, Lavatory Cleaning Powder, Cleansing Powder, Hand Cleaners.
(5) Paraffin, Turpentine, Anti-freeze.
(6) Dustbins, Salvage Baths, Buckets.
(7) Lump Lime.
(8) Paint—undercoat and gloss finish, White Road Line Paint, Distemper (washable oil-bound), Brushes—paint and distemper.
(9) Toilet Rolls, Channel Blocks.
(10) Wheelbarrows—steel.
(11) Salt Glazed Stoneware Pipes.
(12) Artificial Stone Products.
(13) Protective Clothing.
(14) Tarred and Bituminous Products.

Forms of Tender for materials may be obtained on application to the Borough Engineer and Surveyor, Municipal Offices, Rother Street, Stratford-upon-Avon.

Tenders, enclosed in a plain sealed envelope endorsed "Tender for Stores," must be forwarded to the Town Clerk so as to reach him not later than 10 a.m. on the 31st JANUARY, 1962.

The Council do not bind themselves to accept the lowest or any Tender.

P. C. SMART, M.I.C.E., M.I.Mun.E.,
Borough Engineer and Surveyor.

Municipal Offices,
Rother Street,
Stratford-upon-Avon.
1st December, 1961.

BASILDON URBAN DISTRICT COUNCIL.

ACCESS ROAD AND CAR PARK TO LAKE MEADOWS, BILLERICAY.

TENDERS are invited for the **CONSTRUCTION** of approx. 120 lin. yd. of **FLEXIBLE CARRIAGEWAY** and Footway, 3,500 sq. yd. of **ASH SURFACED CAR PARK**, and Drainage Works.

Contractors should apply for documents to the Council's **ENGINEER AND SURVEYOR**, 88 Town Square, Basildon, by 15th DECEMBER. Applications should be accompanied by a £2 2s. deposit (refundable).

HORNCHURCH URBAN DISTRICT COUNCIL.

CONSTRUCTION OF SURFACE WATER CULVERT— BERWICK POND ROAD, UPMINSTER.

TENDERS are invited for the **ABOVE-MENTIONED WORK**, including Excavation for, and Construction in, Heading of 5 lin. yd. of 42in. dia. Culvert, and 9 lin. yd. in Open Trench, and ancillary works.

The Conditions of Contract, Specification and Bills of Quantities may be obtained from the Surveyor's Department, Council Offices, Billet Lane, Hornchurch, upon payment of a deposit of Two Guineas which will be refunded in the case of a bona-fide Tender not subsequently withdrawn.

The documents and priced Bills of Quantities must be returned to the undersigned not later than Noon on MONDAY, 1st January, 1962, sealed in the envelope provided, which shall bear no indication of the identity of the person(s) tendering.

P. L. COX,
Clerk of the Council.

Council Offices,
Hornchurch, Essex.

CONTRACTS

BOROUGH OF SUTTON COLDFIELD.

PLANTS BROOK IMPROVEMENT AND SEWERAGE SCHEME.

CONTRACT NO. 1.

TENDERS will shortly be invited from a selected list of applicants for the CONSTRUCTION of 300 lin. yd. of TWIN CULVERTS each 8ft. 6in. wide x 6ft. deep, together with 60 lin. yd. of 54in. dia. Steel Sewer. The Contract will mainly comprise two crossings of the Birmingham and Fazeley Canal. This work will be subject to a bonus clause and liquidated damages clause.

The Corporation and the British Transport Commission will wish to be fully satisfied as to the competence of contractors to undertake work of this category.

Contractors wishing to be included in the list are invited to submit their names, together with evidence of their competence to undertake works of this nature, to the undersigned, before 12 Noon on 29th DECEMBER, 1961.

No undertaking is given that all applicants, or any one, will be invited to tender.

J. P. HOLDEN,
Town Clerk.

Council House,
Sutton Coldfield.
1st December, 1961.

BOROUGH OF WOOD GREEN.

TENDERS FOR PERIODIC SUPPLIES AND EXECUTION OF WORKS.

The COUNCIL invite TENDERS for the SUPPLY of MATERIALS and the EXECUTION of WORKS for periods of one, two or three years, commencing 1st April, 1962, as FOLLOWS:

(1) Cold Black Asphalt.
(2) Stoneware Pipes.
(3) Portland Cement.
(5) Masons' and Paviors' Works.
(8) Horse Hire.
(11) Tarmacadam.
(12) Coke.
(13) Ballast and Sand.
(17) Electric Lamps (including those for street lighting purposes).

Tenders must be on the official forms, which may be obtained at the Borough Engineer and Surveyor's Office at the Town Hall.

The Tenders, in plain sealed envelopes bearing the words "Tender for ——," but no name or mark indicating the sender, must reach the undersigned not later than Noon on FRIDAY, 5th January, 1962.

G. W. PLATER,
Town Clerk.

Town Hall,
Wood Green, N.22.
6th December, 1961.

CITY AND COUNTY OF BRISTOL.

FENCING CONTRACT, 1961/62.

TENDERS invited for CONSTRUCTION of approx. 1,075 lin. yd. PLASTIC-COATED CHAIN LINK FENCING, 270 lin. yd. WIRE-STRAND FENCING, and 70 lin. yd. PALISADE FENCING on Steel or Concrete Posts ranging in height from 4ft. to 12ft., at VARIOUS SITES in the City, and for SUPPLY and ERECTION of FOUR GATES.

For sight of Plans and copies of Conditions of Contract, Form of Bond, Specification and Bill of Quantities, apply to CITY ENGINEER AND PLANNING OFFICER, Cabot House, Deanery Road, Bristol, 1.

Tenders, in envelope provided, endorsed "Fencing Contract," bearing no mark indicating sender, by 10 a.m., 3rd JANUARY, 1962.

R. J. CARR,
Technical Estimating Services,
73 Leadenhall Street, London, E.C.3.
Telephone: AVE. 9676-1120.

CONTRACT WORK WANTED.—Fencing, Road Work, Sewers, Factory Foundations or Stanchion Bases. Good labour. Also J.C.B.s for HIRE.
Write Box X.5205, "The Contract Journal."

For Contracts received too late for classification see page 729

APPOINTMENTS VACANT

OFFICE OF PUBLIC WORKS, DUBLIN.

VACANCIES for INSPECTORS FOR MECHANICAL PLANT. Qualifications include practical experience of heavy earthmoving equipment and of workshop or field inspection; knowledge of modern plant and equipment.

Age 25 to 45 years on 1st November, 1961.

Rate of Wages: Up to £14 12s. 6d. a week.

Application Forms, obtainable (with further particulars) from SECRETARY, Office of Public Works, Dublin, 2, should be completed and forwarded so as to reach that Office not later than 5 p.m. on 15th DECEMBER, 1961.

NORFOLK COUNTY COUNCIL.

HIGHWAYS DEPARTMENT.

APPLICATIONS are invited for the UNDER-MENTIONED APPOINTMENTS:

Two Engineering Assistants—Grade III/IV (£960-£1,310 p.a.), in the County Roads Drawing Office, Norwich.

Candidates should be Associate Members of the Institution of Civil Engineers, or hold an equivalent qualification by examination. They must be competent Surveyors, having had experience of design, setting-out and construction of roads.

The starting point on the salary scale will be according to qualifications and experience.

A motor car is essential, and the appointed officers will be paid an essential user's car allowance in accordance with the recommendations of the National Joint Council, as adopted and applied from time to time by the County Council. Loans available for purchase if required.

The appointments will be on the permanent establishment of the Department, terminable by one month's notice on either side. The Provisions of the Local Government Superannuation Acts, 1937 to 1953, apply. The successful candidates will be required to pass a medical examination. Grant towards removal expenses.

The National Joint Council Service Conditions apply in general.

Further particulars and Application Forms obtainable from the COUNTY SURVEYOR, County Offices, Thorpe Road, Norwich, NOR 47A.

Latest date for completed Application Forms: 22nd DECEMBER, 1961.

APPOINTMENTS VACANT

LANCASHIRE COUNTY COUNCIL.

APPOINTMENT OF SAFETY SUPERVISORS.

APPLICATIONS are invited for the POSTS of: (a) SAFETY SUPERVISOR; and (b) ASSISTANT SAFETY SUPERVISOR in the County Surveyor's Department.

The Department's direct control organisation has a large programme of road and bridge construction and maintenance, including the maintenance of very large high-level bridges. The persons appointed must be Chartered Civil or Structural Engineers experienced in the supervision of works of engineering construction. The principal duties will be advising on the observance of the requirements, for the safety or protection of persons employed, imposed by, or under, the Factories Act, 1937 to 1959, or the Lead Paint (Protection Against Poisoning) Act, 1926, and other safety matters, and of exercising a general supervision of the aforesaid requirements and of promoting the safe conduct of the work generally.

The salary grades will be for post (a): £1,560-£1,825, and for post (b) £1,400-£1,565, the entry point on the grade being according to the experience of the Candidate. The posts are superannuable and subject to satisfactory medical reports. Disturbance allowance and/or removal expenses will be payable in appropriate cases.

Applications, giving details of age, education, qualifications and experience, and quoting Ref. 136/12, together with the names and addresses of two referees, to be received by the COUNTY SURVEYOR, P.O. Box 9, County Hall, Preston, by 29th DECEMBER, 1961.

CITY AND COUNTY OF BRISTOL.

APPOINTMENT OF STRUCTURAL ASSISTANT—GRADE A.P.T. IV.

APPLICATIONS invited for POST of STRUCTURAL ASSISTANT in General Engineering Section of City Engineer and Planning Officer's Department. Salary Grade A.P.T. IV (£1,140-£1,310 p.a.).

Candidates should have good general experience and training in structural engineering in reinforced concrete and steel for work largely in connection with administration of Building By-laws, and should be Corporate Members of Institution of Structural Engineers or other appropriate professional Institution.

Post permanent, pensionable; medical examination and, except in case of an officer transferred from service of another local authority, six months' probationary period.

Five-day week; staff restaurant facilities. Housing needs of successful candidate and contribution towards removal expenses favourably considered.

Applications should be arranged in following order: Age, nationality and whether married or single; education; training; professional qualifications; present post, with salary and date of appointment; previous posts, with salaries and dates of appointment; details of experience; any further remarks in support of application; notice required to terminate present appointment; whether related to a member or senior officer of the Council; names of two referees.

Canvassing disqualifies.

Applications to CITY ENGINEER AND PLANNING OFFICER, Cabot House, Deanery Road, Bristol, 1, by 22nd DECEMBER, 1961.

WILLENHALL URBAN DISTRICT COUNCIL.

WORKING FOREMAN—SEWAGE DISPOSAL WORKS.

APPLICATIONS are invited for the ABOVE POST from persons with experience of sewage works operation and general maintenance of plant, and capable of taking charge of the work in the absence of the Manager.

Weekly wage £10 10s.; compulsory overtime payable. Holidays with pay, and sick scheme.

Applications, stating name, age, experience, should be received by the undersigned not later than MONDAY, 11th December, 1961.

J. R. RIDING,
Clerk of the Council.

Town Hall,
Willenhall.

WILLENHALL URBAN DISTRICT COUNCIL.

(SECOND ADVERTISEMENT.)

CHIEF ENGINEERING ASSISTANT—A.P.T. III.

APPLICATIONS are invited for the POST of CHIEF ENGINEERING ASSISTANT in the Engineer and Surveyor's Department, from persons possessing the Testamur of the Institution of Municipal Engineers or other approved qualification, at a salary in accordance with A.P.T. III, commencing at minimum of £1,055 per annum.

Applicants should have had considerable experience in Municipal Engineering, and will be required to take charge of the Drawing Office.

There is a considerable volume of work of all types, including preparation of large highway improvement schemes, private street works, main drainage, and the design of siteworks on several housing estates.

The appointment is subject to the Local Government Superannuation Act and the National Schemes of Conditions of Service, and one month's notice on either side.

Housing accommodation will be provided for married applicants, and two-thirds removal expenses will be paid.

Applications, stating age, training, qualifications, present and previous appointments, and experience, together with the names of two referees, should be received by the undersigned, in plain sealed envelopes, not later than WEDNESDAY, the 13th December, 1961.

JOHN R. RIDING,
Clerk of the Council.

Town Hall,
Willenhall.

BASILDON DEVELOPMENT CORPORATION.

CHIEF ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the POST of ASSISTANT ENGINEER, Grade A.P.T. IV (Salary Scale £1,140-£1,310 p.a.).

Applicants should have had suitable training and experience in the office of a Municipal or Consulting Engineer, and should be Chartered Civil Engineers or Chartered Municipal Engineers.

The post is superannuable and subject to one month's notice on either side. It offers excellent civil engineering experience on works in connection with the extensive development programme of the New Town.

Applications, giving details of age, education, qualifications, experience, and previous and present employment, together with the names and addresses of two (technical) referees, should reach the GENERAL MANAGER, Basildon Development Corporation, Gifford House, Basildon, Essex, not later than First Post on MONDAY, 18th December, 1961.

APPOINTMENTS VACANT

UGANDA.

MINISTRY OF WORKS.

EXECUTIVE ENGINEER.

Duties: To carry out general duties of a Civil Engineer and may include work on roads.

Qualifications: Candidates (aged 28-45) should have either a University degree, or equivalent, recognised by the Institution of Civil Engineers, or be A.M.I.C.E. or A.M.I.Mun.E., with not less than two years' practical experience. Experience on roads would be an advaintage.

Terms of Appointment: On contract for one tour of 21-27 months in the first instance.

Total Emoluments (including gratuity) in Scale £1,582-£3,060 p.a.

Education Allowances: £150 to £200 per child educated in Britain.

Free passages. Free medical attention. Taxation at local rates.

Apply DIRECTOR OF RECRUITMENT, Department of Technical Co-operation, Carlton House Terrace, London, S.W.1, quoting D14/RC210/53/04, and giving full name, age, and brief details of qualifications and experience.

CUMBERLAND COUNTY COUNCIL.

HIGHWAYS AND BRIDGES DEPARTMENT.

APPLICATIONS are invited for the APPOINTMENT of ASSISTANT ENGINEER (Roads), within A.P.T. Grade III/IV (£960-£1,310 p.a.).

Candidates should be at least be Graduate Members of the Institution of Civil Engineers (or equivalent), or Engineering Graduates of a recognised British University, and, in addition, should have had a minimum of five years' experience (including the period spent on theoretical training).

Although not essential, it will be an advantage if candidates have had previous experience in the office of a County Surveyor.

Further particulars and Forms of Application are obtainable from the County Surveyor and Bridgemaster, Citadel Chambers, Carlisle, to whom completed applications should be returned not later than FRIDAY, 15th December, 1961.

G. N. C. SWIFT,
Clerk of the County Council.

The Courts,
Carlisle.

BOROUGH OF MARGATE.

BOROUGH ENGINEER'S DEPARTMENT.

The COUNCIL invite APPLICATIONS for the POSITION of ENGINEERING ASSISTANT on Salary Grade A.P.T. II (£815 to £960 p.a.).

Applicants must have had good general experience in engineering, preferably with a local authority.

The Council will assist in the provision of housing accommodation, and would consider assistance towards removal expenses. A 5-day week is in operation.

Applications are to be received by the Borough Engineer, 38 Grosvenor Place, Margate, not later than 12 Noon on SATURDAY, 23rd December, 1961, and should give details of age, previous experience, present employment, and names of two referees.

T. F. SIDNELL,
Town Clerk.

40 Grosvenor Place,
Margate, Kent.

BOROUGH OF WORTHING.

APPOINTMENT OF ASSISTANT ENGINEERS.

APPLICATIONS are invited for the APPOINTMENT of TWO ASSISTANT ENGINEERS in the Borough Engineer's Department on Grade A.P.T. III/IV, i.e., £960-£1,310 p.a., commencing salary according to experience and qualifications.

Candidates should preferably have had experience in a Municipal Engineer's Department.

The appointments will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the Provisions of the Local Government Superannuation Acts, and to the successful candidate passing satisfactorily a medical examination.

Applications, stating age, qualifications, experience, present and past appointments, with dates, and accompanied by copies of two recent testimonials, should be submitted to the Borough Engineer and Surveyor, Town Hall, Worthing, not later than the 18th DECEMBER.

ERNEST G. TOWNSEND,
Town Clerk.

BOROUGH OF GOSPORT.

APPOINTMENT OF TRENCH INSPECTOR.

APPLICATIONS are invited for the ABOVE APPOINTMENT in the Borough Engineer's Department, to control, record and supervise all aspects of the Public Utility Street Works Act, and works carried out by the Statutary Undertakings, with particular emphasis on the reinstatement of openings made in public highways.

The appointment will be permanent, subject to the satisfactory completion of a three months' trial period and to the usual Local Government Conditions of Service, and the salary will be in accordance with Misc. Grade IV (£623, rising to £685 p.a.) for a 5-day (42-hour) week. A motor-scooter will be provided for the work, and the possession of a driving licence will be an advantage.

Applications, stating age, present and previous appointments, details of experience, and giving the names and addresses of two referees, should reach me not later than TUESDAY, 19th December, 1961.

EDWARD ADDENBROOKE,
Town Clerk.

Town Hall,
Gosport.

CITY OF PLYMOUTH WATER DEPARTMENT.

CLERK OF WORKS.

APPLICATIONS are invited for the POST of CLERK OF WORKS for the construction of water treatment works at Dousland, near Plymouth (2½m. gallons per day capacity), comprising: R.C. reaction and settling tanks: R.C. rapid gravity filters and associated building: R.C. sludge tank and reservoir.

Applicants must have had previous experience of the supervision of similar high-class water-retaining reinforced concrete construction, and give the names of two previous employers to whom reference may be made.

Salary £15 12s. 7d. per week. Duration of contract approx. 18 months.

Appointment subject to one month's notice on either side.

Applications, endorsed "Clerk of Works," to reach the undersigned not later than 18th DECEMBER.

N. G. ELLIOT, M.Sc., M.I.C.E., M.I.W.E.,
City Water Engineer.

22 Portland Square,
Plymouth

APPOINTMENTS VACANT

EDITORIAL ASSISTANT

for Building Journal

PREVIOUS experience of journalism is not essential for this appointment, but candidates must be able to write, clearly, concisely and in good English, short articles on materials, equipment and plant of interest to builders, contractors and architects. Write, giving age and full particulars of education and experience, to: Box V5203, "The Contract Journal"

THE MITCHELL CONSTRUCTION CO. LTD.
requires a
SENIOR QUANTITY SURVEYOR
(Major Power Station Project)

The applicant must have had several years' experience in connection with heavy civil engineering projects. Preference will be given to men between 32 and 40. This is a permanent appointment, offers a good salary and entry into the Superannuation Scheme after a probationary period.—Applications, which will be treated in the strictest confidence, should be addressed to:

The Personnel Manager (Ref. S.2),
THE MITCHELL CONSTRUCTION CO., LTD.,
Wharf Works, Peterborough, Northants.

SPECIALIST PREFABRICATED BUILDINGS

A big future waiting for a first-class experienced CONTRACTS MANAGER capable of assuming full charge of contracts which embrace all builders' work ancillary to the supply, delivery and erection of these fine structures. Candidates must be energetic and have ability to get things done. Salary from £1,500 per annum upwards, plus estimated bonus of £1,000, which must be earned.

Write, in confidence, to

"Managing Director"

Box No. V.5237, "THE CONTRACT JOURNAL."

PERSONNEL AND APPOINTMENTS MANAGER

required for Building and Civil Engineering Contractors in the London area to be responsible for recruitment, training, welfare and records of personnel at all levels. Previous experience of this industry and its requirements is desirable. Good salary and bonus, pension scheme. Apply in confidence with full details to Box V5240, "The Contract Journal"

APPOINTMENTS VACANT

CLASSIFIED ADVERTISEMENT RATES:

Classification	First Four Lines or Less	Each Additional Line
APPOINTMENTS VACANT	12/-	2/6
APPOINTMENTS WANTED	7/6	1/6
WORK REQUIRED, BUSINESS OPPORTUNITIES, BUSINESSES FOR SALE, DIVING, FINANCE, PROFESSIONAL SERVICES, AGENCIES, HORTICULTURAL, PROPERTY, SALE BY AUCTION, PLANT AND MISCELLANEOUS	14/-	3/-

BOX NO. 1/- EXTRA.

THE SPENCER WIRE CO. (STEEL), LTD., P.O. Box 14, Wakefield, invite applications from trained, experienced SALES REPRESENTATIVES for the sale of their Spencer Mesh Reinforcement Fabric in various areas in the northern part of England and Southern Scotland.—Write in confidence, giving fullest particulars, addressing application to the Sales Director.

THE LYON GROUP

ESTIMATOR REQUIRED for all types of building works and reinforced concrete structures up to £1m. in value. This is a responsible position offering the opportunity to expand a department in a rapidly growing organisation, carrying out works throughout the country. Non-contributory pension and life insurance benefits available after qualifying period.—Apply, in writing, giving full details of experience, to:

The Managing Director,
RONALD LYON CONSTRUCTION, LTD.,
Auckland House,
New Zealand Avenue, Walton-on-Thames, Surrey.

AGENTS REQUIRED for work in the Home Counties area. Experienced in trunk roads and structural concrete.—Write, giving names of previous employers, contracts worked, and salary required, to Contracts Manager, FITZPATRICK AND SON (CONTRACTORS), LTD., 455 Old Ford Road, Bow, E.3.

FITZPATRICK REQUIRE qualified ENGINEER for work in the Home Counties area on urban road bridge and underpass type contracts. Applicants should be between 25 and 35 years of age, and have had previous contracting experience.—Apply in writing, stating full particulars, qualifications, and names of previous employers, to Contracts Manager, FITZPATRICK AND SON (CONTRACTORS), LTD., 455 Old Ford Road, Bow, E.3.

ESTIMATOR

REQUIRED by CONSTABLE HART AND CO., LTD., for their Midland Office. Applicants should be experienced in the preparation of make-ups and estimates for all types of "black top" surfacing, and should apply, in writing, in the first instance, giving details of previous experience, etc., to.

CONSTABLE HART AND CO., LTD.,
15 St. James' Chambers, St. James' Street, Derby.

SENIOR ESTIMATOR REQUIRED by firm of civil engineering contractors. Head office appointment, Berkshire. Permanent and progressive post, with superannuation scheme in operation.—Write in confidence, stating age, full details of experience with past employers, and salary required, to Box V.5211, "The Contract Journal."

GENERAL FOREMAN and FOREMAN REQUIRED. Fully conversant with bridge construction; knowledge of prestressing is essential. Attractive salary and conditions.—First-class men should apply to Agent, SIR LINDSAY PARKINSON AND CO., LTD., Dunnocksfold Road, Alsager, Stoke-on-Trent.

CONTRACTOR'S ORGANISATION

On a large overseas job has an immediate vacancy for a CIVIL ENGINEER, whose duties will probably be mixed site and office work, the latter being particularly measurements and certificates. — Write, giving age, qualifications, names of previous employers and short descriptions of the contracts concerned, to:

BOX V.5210, "THE CONTRACT JOURNAL."

SENIOR AGENT REQUIRED, to take control, under Area Manager, of roadworks contracts in the North Somerset and adjacent areas. Applicants should reside in the Bristol or Taunton area and be fully experienced in all aspects of roadworks, particularly surfacing.—Please write, stating age, experience, and salary required, to Box V.5238, "The Contract Journal."

SHELLABEAR, PRICE, LTD.,

require SITE ENGINEERS for varied and interesting work on their Earthworks Sub-contract for the South Cheshire Motorway.

Apply, giving details of previous experience and salary required to Shellabear, Price, Ltd., Auckland House, New Zealand Avenue, Walton-on-Thames, Surrey.

APPOINTMENTS VACANT

GENERAL MANAGER for building and civ engineering contractors. Medium-sized, priva company; approx. turnover £1/2m.; Midlands are Must have held similar position and have considera experience in all aspects of civil engineering an building. Age 35-50 years. Commencing salary n less than £2,000. Car provided. Bonus on profits Write, giving full details, to Box V.5229, "The Contract Journal."

ROBERT M. DOUGLAS (CONTRACTORS), LTD.

REQUIRE to appoint to their regular establishment
1. ENGINEER/AGENTS
ENGINEER/SUB-AGENTS
SECTION ENGINEERS
For Civil Engineering Works and combined Civ Engineering and Building Works.
2. SENIOR QUANTITY SURVEYORS
For Midlands and North East Areas. Must have sound knowledge of preparation and management of final accounts for civil engineering and building works, based on contractors' site and head offic experience.
3. A COST AND BONUS SURVEYOR
Preferably with quantity surveyor or civil engineering basic training, to administer and control from head office an established system of (a) Unit Costing and (b) Production Bonus Payment.
There are excellent prospects for progressive career and a pension scheme operates. — Reply, in own handwriting, giving the following information: Initial training, qualifications, experience, salary required and when free to commence, to:

The Secretary,
ROBERT M. DOUGLAS (CONTRACTORS), LTD.,
395 George Road, Erdington, Birmingham, 23.

AMALGAMATED ASPHALTE COMPANIES RE QUIRE experienced ASPHALT AGENT to tak complete control of mobile contracts. The post i permanent and pensionable, with good prospects fo promotion to a more static position.—Apply to Road Manager, Asphalte House, Palace Street, London S.W.1.

PLANT HIRE MANAGER REQUIRES PERSONAL ASSISTANT to supervise operation of growing fleet of contractors' plant. Previous experience o plant hire an advantage, but not essential provided applicant is young and energetic. Company car pro vided. Pensionable position.—Applicants should apply in writing, stating age and experience, to R. J. DAVIES (MIDLANDS), LTD., AND PARTNERS, 172 Hartshill Road, Birmingham, 34.

FOREMEN

REQUIRED for large bore piling contracts. Previous knowledge of piling desirable, but applicants with civil engineering experience will be considered. Ability to use dumpy level and theodolite an advantage. Permanent employment will be considered for retained men, who must be prepared to travel anywhere in U.K. Interviews can be arranged either in London or Birmingham. — Written applications should be addressed to:

BRAITHWAITE FOUNDATIONS AND CONSTRUCTIONS, LTD.,
P.O. Box 2, Great Bookham, Surrey.

SURVEYOR REQUIRED for building and civil engineering contractors operating mainly in Southern England, with head office near Guildford. Successful applicant will be head office-based, visiting various contracts. Duties will include preparation of interim and final accounts, checking sub-contractors' accounts, detailing of requirements for contract materials, summarising cost details and assisting with programmes. Contracts range from £30,000 to £300,000. Excellent opportunity exists in an expanding organisation for energetic and diligent man.—Write giving full particulars of training and previous experience, with age and present salary, to Box V.5232 "The Contract Journal."

ENGINEER AGENT

Medium-sized civil engineering contracts. Excellent Permanency with excellent prospects.

WRITE BOX V.5231, "THE CONTRACT JOURNAL"

A **WELL-KNOWN** engineering company in S.W. London offers security and opportunity of advancement to a really Top-class FOREMAN who has specialised in diesel engine rebuilding (industrial and marine). Applicants should be aged between 35-45, have served an apprenticeship with a diesel engine manufacturer, and held the position of Foreman for three years. A good salary is offered.—Write in confidence, giving fullest details of age, experience, salary now receiving, and references, to Managing Director, Box V.5250, "The Contract Journal."

CIVIL or STRUCTURAL ENGINEER (Senior) Specialised in reinforced concrete design, RE QUIRED by consulting engineers, Glasgow. Applicants should be A.M.I.C.E. or A.M.I.Struct.E. Pension scheme available. Commencing salary £2,000-£2,500 p.a., according to experience. Our own staff have been notified of this vacancy.—Written applications, in strictest confidence, to Box V.5251, "The Contract Journal."

THE LYON GROUP

ASSISTANT SURVEYORS REQUIRED to measure sub-contract works and assist in the preparation of interim valuations and final accounts. Positions are permanent, offering a wide variety of experience in the administration of all types of building work. Non-contributory pension and life insurance benefits available after a qualifying period.—Apply, in writing, giving full details of experience, etc., to:

The Chief Surveyor,
RONALD LYON CONSTRUCTION, LTD.,
Auckland House,
New Zealand Avenue, Walton-on-Thames, Surrey.

FITZPATRICK AND SON (CONTRACTORS), LTD. REQUIRE ENGINEERS between the ages of 22 to 27 years, for work in the Home Counties area on urban trunk roads, bridges, underpasses, etc. Good salaries and future prospects. — Reply in writing, giving full particulars of technical training, practical experience, and employers, to Contract Manager, Fitzpatrick and Son (Contractors), Ltd., 455 Old Ford Road, Bow, E.3.

APPOINTMENTS VACANT

OLD-ESTABLISHED North Country civil engineering contractors who intend expansion to cover North of England and South of Scotland would like to hear from: (a) CHARTERED CIVIL ENGINEERS and experienced CONTRACTORS' AGENTS, capable of controlling contracts up to about £500,000. Prospect of promotion to Area Manager in due course. Starting salary £2,000/£2,500 p.a., according to experience. (b) CIVIL ENGINEERING ESTIMATORS, capable of preparing tenders for contracts up to £500,000. Salary from £1,000 to £1,500, according to experience.—Write in confidence, stating age, present salary, qualifications and experience, to Box V.5244, "The Contract Journal."

CIVIL ENGINEER

PETER LIND AND CO., LTD., REQUIRE a CIVIL ENGINEER for work, chiefly at their head office, on designs, tenders and contract planning for large diameter drilled foundations. Applicants should have reasonable experience in design and site work, and some knowledge of soil mechanics would be an advantage.—Apply, in own handwriting, giving full details of age, training, experience and salary required, to:

PETER LIND AND CO., LTD.,
Romney House, Tufton Street, London, S.W.1.

CHIEF ESTIMATOR, thoroughly experienced in precast concrete, REQUIRED by large company in the Midlands. Unusual opportunity for the right man. Write fullest details of experience, salary required, to Box V.5235, "The Contract Journal."

ASSISTANT ESTIMATOR REQUIRED for permanent, progressive position at Chesterfield office. Applicants should have good quantity surveying experience in both building and civil engineering works.—Apply in writing, stating age, experience, and salary required, to ROBERT McGREGOR AND SONS, LTD., Turnoaks Lane, Chesterfield.

BUILDING SENIOR QUANTITY SURVEYOR.—This permanent vacancy is for a really first-class Surveyor experienced at working on own initiative and being responsible for all surveying duties in connection with a group of large contracts.—Written applications, in confidence, to Box V.5271, "The Contract Journal."

GENERAL FOREMEN—DRILLED FOUNDATIONS

PETER LIND AND CO., LTD., REQUIRE GENERAL FOREMEN to supervise large diameter bored pile contracts all over the country. Previous experience of this work preferable but not essential. Essential qualifications are drive and the production of a good-quality job. Applicants should be mobile, able to set out works and keep accurate records, control concrete quality, and have sound knowledge of plant. Permanent positions with pension scheme for the right men. Apply in writing, giving full details of age, experience and salary required, to:

PETER LIND AND CO., LTD.,
Romney House, Tufton Street, London, S.W.1.

SALES REPRESENTATIVE for Birmingham and South Midlands REQUIRED by leading drainpipe manufacturers. Salary, commission and expenses: car provided. Contributory pension scheme. State age, experience, and remuneration required.—Write Box V.5269, "The Contract Journal."

PILING and foundation specialists REQUIRE a MAN for setting-out on sites throughout the country. Need not be qualified, but must be conscientious and reliable, and prepared to travel frequently.—Write, giving details of experience, to Box V.5274, "The Contract Journal."

SITE CASHIERS
SITE TIMEKEEPERS

Vacancies in the Midlands, Hereford and South Wales areas for fully experienced men in above positions, previously worked for similar firms on large building contracts. Cashiers will be required to pass Fidelity Insurance. Timekeepers will be required to write up pay sheets, etc. Age range 30 to 45 years. Applications to:

WILSON LOVATT AND SONS, LTD.,
Clarence Street, Wolverhampton.

EXCAVATOR DRIVER, any equipment; heavy lifting crane driver, bulldozer or scraper; fitter not timeserved, engineer or diesel/electric boats. Able to take charge. References. Work overseas or home.—'Phone: Inverkeithing 544, or write Box V.5272, "The Contract Journal."

THE CEMENTATION CO., LTD., REQUIRE an experienced BUYER for their civil engineering division at Bentley Works, Doncaster. Applicants should preferably have a minimum of five years' experience in a similar position.—Apply, giving particulars of past experience, to The Cementation Co., Ltd., Civil Engineering Division, Bentley Works, Doncaster.

TAYLOR WOODROW (OVERSEAS), LTD.

REQUIRE BUILDING ESTIMATOR. Sound knowledge of the industry required, to work on the preparation of estimates for contracts in many parts of the world, but previous experience of overseas estimating not essential.—Please write, giving details of experience, to:

Personnel Manager,
TAYLOR WOODROW (OVERSEAS), LTD.,
Western House, Western Avenue, Ealing, W.5.

ENGINEER/AGENT, age 20 to 35, REQUIRED January, 1962, by civil engineering contractor, Croydon. Must be experienced in setting-out, site administration and preparation of interim accounts for medium-sized public works contracts. Permanent position, with good prospects.—Write, giving qualifications, age, experience, and present salary, to Box V.5268, "The Contract Journal."

ASSISTANT CHIEF ESTIMATOR.—Building contractor with an established connection in many fields of construction INVITES APPLICATIONS from fully trained and experienced Estimators for this permanent position. Age not over 40, and able to produce successful record over past recent years, embracing contracts up to about £1m. in value.—Write full particulars to Box V.5270, "The Contract Journal."

APPOINTMENTS VACANT

BOWMAKER (PLANT), LTD., distributors for the products of Caterpillar Tractor Co. in Midlands, Wales and West of England, have been granted a further franchise for the Mangla Dam and allied projects in Pakistan. The company will be sending to Pakistan 15 to 20 dealer-trained personnel of all grades and trades, as foremen and executives, mainly chosen from its present staff. The projects are expected to take seven years to complete. It is intended to replace staff in Pakistan at two- and four-year intervals, thus providing wide experience for many, and at the same time giving permanent employment for those showing technical skill and enthusiasm for the company's interests. Overseas rates and remuneration will be assessed after payment of Pakistan taxation, and fixed according to responsibilities accepted, taking into account age and past experience. Salaries will be graded so that annual savings should be at least 50 per cent. of basic rates of pay in England. Accommodation passages, medical attention will be provided, together with any other concessions found to be essential. Posts in England and overseas will be filled by those applicants with three or more years' experience with an earthmoving equipment dealership. Personnel with parts and storekeeping records experience most welcome. Write, stating age, family status, short descriptions of posts held more than two years, basic salary required. Interviews will be arranged forthwith; appointments decided this year.—Personnel Manager, Bowmaker (Plant), Ltd., Watling Street, Cannock, Staffs.

SENIOR QUANTITY SURVEYOR

Dear Surveyor,—We have two permanent vacancies at our Wolverhampton office for Senior men able to work on own initiative, to take over a group of large building contracts and be responsible for progress payments, variations and final accounts and sub-contractors' accounts. Must produce previous successful record over past five years. Age range 35 to 45 years. A very good salary with security conditions will be offered to the successful applicants, and applications will be treated in strict confidence.

WILSON LOVATT AND SONS, LTD.,
Clarence Street, Wolverhampton.

CONTRACTORS' ENGINEER REQUIRED for civil engineering contractors near Manchester. Must have extensive experience of sewering and sewage disposal works contracts and be capable of preplanning, ordering materials, preparing interim and final accounts, and dealing with claims.—Write, with full details of previous experience, age, and salary required, to Box V.5288, "The Contract Journal."

ELECTRICIAN REQUIRED for tower cranes and general plant maintenance. Must have site experience and driving licence.—Write Box V.5281, "The Contract Journal."

TAYLOR WOODROW CONSTRUCTION, LTD.

REQUIRE for building and civil engineering sites experienced **WAGES CLERKS, TIMEKEEPERS** and **CHECKERS.** Mobile and willing to work hard for advancement. Good salary, pension scheme. Interviews at Southall, with travelling expenses paid, can be arranged at any time, including early evenings and Saturday mornings. — Write, giving details of experience, etc., to:

Personnel Manager,
TAYLOR WOODROW CONSTRUCTION, LTD.,
345 Ruislip Road, Southall, Middlesex.
Telephone. WAXlow 2366.

TECHNICAL SALES REPRESENTATIVE (South Midlands and Western Area).—A vacancy has arisen for a Technical Representative for this old-established firm of natural and reconstructed stone manufacturers. Applications are invited from experienced and competent men between 25 and 40 years of age, with a first-class selling record, and with a good knowledge of the building and contracting industries. A good salary will be offered, supplemented by an incentive bonus. This position offers prospects to a man of integrity who is capable of working on own initiative, and conducting negotiations at architect and executive level.—Applications, stating age, full details of experience, and present salary (in confidence), to the Sales Director, COTSWOLD DALE STONE CO., LTD., Magdalen Works, Tetbury, Glos.

SENIOR SITE ENGINEER

Qualified, WANTED for large reinforced concrete building contract at Oxford. Applicants should have had a minimum of 3/4 years' experience in the erection of reinforced concrete structures, particularly in regard to concrete control.

WRITE BOX V.5282, "THE CONTRACT JOURNAL."

SENIOR ESTIMATORS REQUIRED to work in either London or Glasgow. Experience in marine, heavy foundation and reinforced concrete works. Pension scheme in operation. Apply in writing, giving qualifications and experience, to KINNEAR MOODIE AND CO., LTD., 299 Hither Green Lane, London, S.E.13.

FOREMAN REQUIRED for work in the Home Counties, experienced in major road and sewer construction.—Apply, in writing, giving full details of previous employers, contracts work and salary required, to Contracts Manager, FITZPATRICK AND SON (CONTRACTORS), LTD., 455 Old Ford Road, Bow, London, E.3.

HOWARD HUMPHREYS AND SONS

Consulting Civil Engineers, REQUIRE at their Offices in West Street, Epsom, Surrey (Tel.: Epsom 6381), ENGINEERING ASSISTANT with experience in main drainage and water supply or roadworks. Salaries up to £1,350 p.a., plus luncheon vouchers.—Forms will be forwarded on application to the: **General Manager** by 'phone or letter to above address. Reference No. 421.

ASSISTANT ESTIMATOR REQUIRED for contractors' branch office. Applicants should give precise details of experience and previous employers.
Write Box V.5295, "The Contract Journal."

GENERAL FOREMAN/AGENT REQUIRED. Must have thorough knowledge of steel, concrete and timber structures.—Apply, in writing: PERRYMAN (BUILDING CONTRACTORS), LTD., 7 Castle Street, Tonbridge, Kent.

APPOINTMENTS VACANT

DEPOT AND TRANSPORT MANAGER REQUIRED by civil engineering contractors, East Berkshire. Age 35/45, with previous experience in control of busy depot and transport fleet. Permanent position, with pension scheme.—Write in confidence, in first instance, giving details of age, training, experience, previous employers, and salary required, to Box V.5290, "The Contract Journal."

SENIOR BUILDING ESTIMATOR

Old-established national contractors REQUIRE for their head office in West Midlands an ESTIMATOR (preferably F.I.B.E. qualification), age range 35 to 45 years, fully trained and experienced in the preparation of realistic estimates for jobs up to £1m. in value, and who can prove a successful record in recent years. Permanent pensionable appointment with top-rate salary and conditions for the right man.—Applications to:

BOX V.5280, "THE CONTRACT JOURNAL."

STRUCTURAL ENGINEER REQUIRED to take charge of design and control of prestressed and precast concrete production. A.M.I.Struct.E. essential. Age 35/40 preferred, with at least four-five years' experience in this type of work. This appointment is in connection with the rapid expansion of a long-established company, and only those with the necessary energy and enthusiasm need apply.— Applications should be addressed to the General Manager, JOHN HEAVER, LTD., Shopwyke Road, Chichester, Sussex, to whom full details of experience and salary required should be submitted.

BUILDING DRAUGHTSMAN

REQUIRED by leading petro-chemical engineers. Ability to work on own initiative is more important than technical qualifications. Ideal age is 25, and four to five years' experience in building layout and construction detailing is required. Five-day week, luncheon vouchers, pension, life assurance and profit-sharing schemes.—Please write, quoting Ref. 302/DE, to:

The Office Manager,
FOSTER WHEELER, LTD.,
Foster Wheeler House, Chapel Street, London, N.W.1.

TAKING-OFF DEPARTMENT.—A vacancy exists in the contracts materials department for an experienced MAN, capable of taking-off building and civil engineering materials. Suitable young tradesman wishing to gain all-round experience.—Write full details of age, and salary required, to Box V.5289, "The Contract Journal."

AGENT

Able to handle a large and complex civil engineering job is REQUIRED overseas. Only well experienced and highly recommended men will be considered. Top salary and generous treatment offered to men obtaining good results. A permanent position in the organisation is envisaged. — Full particulars to:

BOX V.5108, "THE CONTRACT JOURNAL."

REQUIRED by medium-size public works and building contractors, ENGINEER/SURVEYOR, experienced in supervision and measurement of contracts. Salary commensurate with experience. — Apply CHARLES BALL, LTD., Letchworth, Herts.

APPOINTMENTS WANTED

YOUNG AGENT SEEKS CHANGE, N.E. area preferred. Experienced in piling, bridges, roads, heavy excavations, earthmoving, etc.
Write Box W.5254, "The Contract Journal."

FOREMAN STEELFIXER SEEKS POSITION. Experienced in contracts up to 8,000 tons. Willing to travel anywhere. Available soon.
Write Box W.5273, "The Contract Journal."

For Advertisements received too late for classification see page 729

WORK REQUIRED

BULK EARTHMOVING, direct contract or sub-contract. Also BULLDOZERS and SCRAPERS for HIRE.—FRANK R. WALPOLE, LTD., 126 Wing Road, Leighton Buzzard, Beds. Leighton Buzzard 3351.

CONTROLLED EXPLOSIVES, LTD., specialise in the fragmentation of mass and reinforced concrete inside or outside buildings. Demolition of bridges and chimneys, mass rock, trenching, sewage beds, engine beds, etc., and deep drilling for quarries. Particulars from 11 Church Street, Oldbury, Birmingham. Tel.: BROadwell 3117, Blackheath 1996 & 1783.

WANTED, HIRE or CONTRACT WORK for modern fleet of Caterpillar 631 Motor Scrapers, D9s, D8s, 15 cu. yd. Rear Dump Euclids and 38RB Face-shovel. — Apply: BRODERICK AND RYAN, LTD., 421 Nottingham Road, Ilkeston, Derbys. Tel. 4381/2/3.

DROTT BTDs, fitted Winch, and Priestman Cub Vs. HIRE or CONTRACT WORK.—JAMES COOPER, LTD., 28 Kensington Church Street, London, W.8. WEStern 3412.

OVERSITE PREPARATION AND COMPACTION with MODERN MACHINES.—Write or 'phone: SAM BOOTH, LTD., 75 Victoria Street, London. Telephone: Sullivan 3791 and Haywards Heath 1126.

ERECTION AND DISMANTLING.—Structural Steelwork and all types of Prefabricated Components. Speedy and efficient service.—ERECTORS, 80 Bulwell Crescent, Cheshunt, Herts. Waltham Cross 22564.

WANTED, EXCAVATION, SITE CLEARANCE and DEMOLITION WORK.
R. BARKER (PECKHAM), LTD., New Cross 3337.

SITE CLEARANCE CO., LTD., the specialists in MOTORWAYS and GENERAL SITE CLEARANCE. All classes of work undertaken. — 162 Wilderspool Causeway, Warrington, Lancs. Tel.: Warrington 34059.

BULK EXCAVATIONS AND SITE WORKS undertaken. Direct or on SUB-CONTRACT basis. Quotations given for large or small contracts anywhere.—S. AND L. BULL BROS., LTD., 126A High Street, Winchester. Telephone: Winchester 2264.

ENGINEERING SURVEYS Ltd.

have staff available for

SURVEYS and SETTING-OUT

of

Civil Engineering & Building work. U.K. or overseas

60/62 London Road, Kingston-on-Thames, Surrey. Phone: Kingston 7441

ESTIMATES

Britain's Most Experienced Private ESTIMATOR

Fast accurate work. Practical help on site organisation. No contract too large or too small. Comparisons and investigations. Certificates. Valuations. Negotiations. Surveyors and Engineers sent anywhere at short notice.

WORLD WIDE COVERAGE

R. J. CARR
Technical Estimating Services
73 LEADENHALL STREET - LONDON E.C.3
Telephone: AVE 9676-1120

FULLER HORSEY
SONS & CASSELL

AUCTIONEERS AND VALUERS OF PLANT, MACHINERY AND FACTORIES

Since 1807

10 LLOYDS AVENUE
LONDON E.C.3

TELEPHONE: ROYAL 4861

NRP9164

WORK REQUIRED

HIGHWAY CONTRACTORS, LTD., Invite inquiries for large or small EARTHMOVING CONTRACTS. Direct or sub-contracts undertaken. Specialists in Roadbuilding, Playing Fields and Site Excavation with modern fleet of Caterpillar DW21s, D9s, D8s, D7s, Traxcavator 977s, 955s, 933s, Euclid TS14s, and Ruston Excavators.—Contact Head Office: HIGHWAY CONTRACTORS, LTD., 146A Bath Street, Ilkeston, Derbys., or 'phone Ilkeston 4376/7.

EXCAVATION SUB-CONTRACTS. Technical staff available to analyse programme and price complex projects. Particular attention given to finish and compaction. D9, D8, TD18 and TD14 Scrapers, Excavators, Loading Shovels and Lorries available with competent and imaginative supervision for execution of work.—DICK HAMPTON, Broadview Farm, Blacknest, Alton, Hants. Tel.: Bentley 3241.

SITE CLEARANCE. BULK EXCAVATION. JANES AND CO., LTD., Trading Estate, Slough. Telephone: Slough 20361—Ext. 4.

UPROOTING.—TREES, STUMPS, HEDGES, etc. We have the most experience and all modern equipment.—T. GRAVESON, LTD., Warton, Carnforth, Lancs. Telephone: Carnforth 381 and 382.

ERECTION SPECIALISTS. — Prefabricated Dwellings, Offices and Garages Erected.—J. W. ROBINSON, 24 Balmoral Road, South Harrow, Middlesex, Telephone: BYRon 8108.

IF TREES, ROOTS or UNDERGROWTH feature in your contract, we would be pleased to quote for their ECONOMICAL DISPOSAL.—BAGSHOT SAWMILLS, LTD., 32 London Road, Camberley, Surrey. Tel.: 14

CONTROLLED BLASTING (Home and Overseas). Specialists in Demolitions, Bridges, Reinforced Concrete, Pipe/Culvert Trenching, Marine Structures (Underwater), Mass Rock, Trees, Roots, Sewerage Beds, etc. — 42 Richmond Road, Ilford, Essex. Telephone: Ilford 0396.

SITE CLEARANCE, Grading, Solling, Seeding, Turfing and Planting CONTRACTS UNDERTAKEN. Operating in Midlands, Southern and Eastern Counties. GREENSWARD (CONTRACTS), LTD., Thornwood Common, Essex. Telephone: Epping 3368.

EARTHMOVING SUB-CONTRACTORS. Own fleet of tippers and equipment. Operating in Midlands, Southern and Eastern Counties.—H.L.S. (PLANT), LTD., Thornwood Common, Epping, Essex. Telephone: Epping 2252 (4 lines).

WANTED, DEMOLITION, SITE CLEARANCE and EXCAVATION WORK. — DEMO TRUCKING, LTD., Boxmoor 5376.

DEMOLITION, BULK EXCAVATION, SITE CLEARANCE.—PETER MOBBS, LTD., 5 Westland Road, Watford, Herts. Tel.: Watford 23466.

IF GRADING, SEEDING, TURFING and PLANTING form part of your CONTRACT, we will be pleased to quote you. — HOLDRUP, 139 Bells Hill, Barnet. Telephone 9111.

SITE CLEARANCE. EXCAVATION. MOBILE HAULAGE, LTD., 230 Tottenham Court Rd., London, W.1. Lan. 7833-5.

MUD and WEEDS DREDGED from reservoirs, lakes, rivers and canals.—BOMFORD AND WILKINS, LTD., Dredging and Excavating Contractors, Binton, Stratford-on-Avon, Warwicks. Welford-on-Avon 404.

GEO. C. CROASDALE (HAVERTHWAITE), LTD. SITE CLEARANCE.—All inquiries promptly dealt with. Work carried out by own highly skilled labour and modern equipment. Removal of trees and roots a speciality. — GEO. C. CROASDALE (HAVERTHWAITE), LTD., Ulverston, Lancs. Newby Bridge 227.

ACCOMMODATION

FOR HIRE, all types of CARAVANS available. Usual amenities. From 40/- per week. Delivered anywhere.—CATERHAM CARAVAN CENTRE, LTD., The A.22 Roundabout, Godstone Road, Whyteleafe, Surrey. Telephone: Upper Warlingham 3590/3807.

CARAVANS TO RENT for men with families. Rent £7 to £17 per month. Delivery anywhere. For site accommodation, see our display advertisement. LANDSMAN'S SERVICES, Buckden, Huntingdonshire. Telephone: Buckden 287.

ACCOMMODATE YOUR EMPLOYEES in a 4-berth CARAVAN, fully equipped with heating, lighting, cooking and washing facilities. Hire rates from 50/- per week for four persons. Also MOBILE OFFICES. Delivered anywhere.—NORTHERN CARAVAN DISTRIBUTORS, Handforth, Ches. Tel.: Mercury 4255/6.

DIVING

REED AND MALLIK, LTD., Civil Engineering Contractors (Diving Division), Milford Manor, Salisbury, Wiltshire. Telephone 5141.

FOR YOUR UNDERWATER WORK, contact the FOLLOWING MEMBERS of the ASSOCIATION OF UNDERWATER CONTRACTORS:— Conroy Lewis, Ltd., Southampton—Southampton 56578. Diving Specialists, Ltd., Dartford—Dartford 24139. Dockland Diving Engineers, Dagenham—Dominion 6444. Overseas Divers, Ltd., Whitby — Whitby 598. A. J. Parsloe, Brighton—Brighton 61228. Underwater Welders and Repairers, Ltd., Cardiff—Cardiff 29631. Universal Divers, Ltd., Liverpool—Liverpool Cent. 4226. The Association of Underwater Contractors, London—Gerrard 0328.

PROFESSIONAL SERVICES

SETTING-OUT ENGINEERS and LAND SURVEYORS supplied with full equipment and transport to work singly or in teams in ANY PART OF THE WORLD. Motorways, multi-storey works, tunnels, route location, baseline, precise levels, machine setting. Electronic Distance Measuring Service by the day. PRECISE SURVEYS, LTD. — Worcester 27584.

AGENCIES

CONTRACTORS' PLANT COMPANY, situated in Yorkshire, with first-class sales organisation, interested in AGENCIES for range of contractors' plant. Write Box X.5257, "The Contract Journal."

LAND AND PROPERTY

WANTED, CONCRETE PRODUCTS WORKS or PROPERTY suitable for same. Up to 60 miles N.W. of London. Write Box X.5224, "The Contract Journal."

INVENTIONS

INDUSTRIAL ENGINEERS OF REPUTE invite in strict confidence, DETAILS of INVENTIONS, with object of manufacturing and world distribution. Write Box K.L.517, "The Contract Journal."

HORTICULTURAL

TURFING — SEEDING — HEDGING. Quotations for all branches of landscape work, anywhere in the U.K. C.E. contracts a speciality. WEBSTER BROS., LTD., of Horsforth, Leeds. Telephone: Horsforth 2364.

TURVES.—Machine-cut, 3ft. x 1ft., close mown, weed-treated, 60/- per 100. Keen trade rates. We would be pleased to quote for your levelling and laying.—E. R. RANCE, LTD., 24 Sheepcot Lane, Watford. Telephone: Garston 2725.

TURFING — SEEDING — PLANTING. Competitive prices throughout U.K.—KENTISH LANDSCAPES, LTD., Dillywood Lane, Higham, Rochester. Telephone: Strood 78028.

ROTARY CULTIVATION, GRADING, EARTH-MOVING, TURFING. Contract or daywork basis. JAMES COOPER, LTD., 28 Kensington Church Street, London, W.8. WEstern 3412.

TURFING, SEEDING, PLANTING, etc. Competitive prices throughout U.K. Also TURF SUPPLIED. LANDSCAPE AND TURF CO., LTD., Orchard Dene Nursery, Hadlow, Tonbridge, Kent. Tel.: Hadlow 416.

THORN QUICKS and other HEDGING PLANTS. We can supply in any quantity from our own nurseries at very competitive prices. Open for inspection at any time.—MAHOOD BROS., Burscough Bridge, Ormskirk. Telephone Burscough 2150.

LARGE SUPPLIES of TURF and TOP SOIL always available. Supplies to L.C.C. and main civil engineering contractors. — HAVERING LANDSCAPE SUPPLY CO., LTD., Thornwood Common, Epping, Essex. Telephone: Epping 2252 (4 lines).

THORNQUICKS.—Contractors supplied from Land's End to John o'Groats at the best prices in the land. Let us quote you. All types of Trees and Shrubs supplied.—ALFRED J. COX (GARDENS), LTD., Stoke Poges, Bucks. Telephone: Farnham Common 881.

HEDGING QUICKTHORNS, excellent quality— 12/18in., 18/-, 150/-; 18/24in., 26/-, 210/-; 24/30in., 30/-, 270/-; extra heavy: 30/40in., 35/-, 340/-; PRIVET 24/30in., 35/-, 340/-; GOLDEN PRIVET 18/24in., 21/- per dozen. OVAL LEAF PRIVET—12/18in., 25/-, 225/-; 18/24in., 30/-, 285/-; special transplanted bushy: 30/36in., 100/-, 900/-. BEECH TRANS., 3-year—18/24in., 50/-, 480/-; 30/36in., 80/-, 750/-. LONICERA NITIDA— 18/24in., 42/6, 375/-. All above priced at 100 and 1,000. HORNBEAM—12/24in., 70/- per 100. LAURELS (transplanted)—12/18in., 18/- per doz.; 18/24in., 24/- per doz. POPLARS (LOMBARDY)— 4/5ft., 24/- per doz. BLACK ITALIAN, 24/- doz. CUPRESSUS LAWSONIANA: 12/18in., 130/- per 100; 18/24in., 150/- per 100. All carriage paid for orders over 40/-, under add 2/6. C.W.O. GARDEN BEAUTY PRODUCTS, Wickford, Essex. Telephone 2152.

EDWARD GAIT CONSTRUCTION, LTD., 174 Park Road, Kingston, Surrey (Kingston 9382). All types of Horticultural and Sports Ground Work undertaken. Ferguson TRACTORS with all implements for HIRE, also BULLDOZERS and SCRAPERS for HIRE, direct contract or sub-contract.

WESTMORLAND ROCKERY STONE. (any size), **WESTMORLAND RAND AND GREEN WALLING, YORK WALLING AND CRAZY PAVING, SEA WASHED TURF:** delivered anywhere. — BARTON CHIPPENDALE, Carnforth, Lancs. Tel. 612.

QUICKTHORN, SHRUBS, TREES, etc., now being delivered by road direct to sites throughout U.K. Have you ordered your quotas?—ALFRED J. COX (GARDENS), LTD., Stoke Poges, Bucks. Telephone: Farnham Common 881.

SOILING, SEEDING and TURFING. Site Clearance, Excavation and Levelling Work undertaken in any part of the U.K. at competitive prices.—GILLIAM, Purley. UPLands 9222/6.

SALES BY TENDER

EXMOUTH URBAN DISTRICT COUNCIL.

SURPLUS CAST-IRON STREET LAMP COLUMNS AND VARIOUS LANTERN HEADS

The above Council have for DISPOSAL, and invite TENDERS for the PURCHASE of, 158 CAST-IRON LAMP COLUMNS of varying lengths and diameters and 119 assorted LANTERN HEADS.

The columns and heads may be seen at the Central Depot, Camperdown Terrace, Exmouth, at which point the selected tenderer will be required to load and remove them from the site.

Tenders, in sealed envelopes, endorsed "Lamp Columns and Heads," and bearing no mark or indication of the sender, must be delivered to the undersigned by not later than Noon on MONDAY, the 18th of December, 1961.

The Council do not bind themselves to accept the highest or any Tender.

R. S. BAGSHAW,
Clerk and Solicitor.

Town Hall,
Exmouth.

WALTON AND WEYBRIDGE URBAN DISTRICT COUNCIL.

FOR SALE BY TENDER.

TENDERS are invited for the PURCHASE of the FOLLOWING SURPLUS VEHICLES:—
Two 3/4-ton Bedford Tipper Lorries.
Two Austin A40 Vans.
One Ota 3-wheel Tractor.

Particulars of the above and Forms of Tender may be obtained from the Engineer and Surveyor, Council Offices, Walton-on-Thames.

Tenders are to be enclosed in plain sealed envelopes, endorsed "Tenders for Surplus Vehicles," and delivered to me not later than FRIDAY, 29th December, 1961.

The Council do not bind themselves to accept the highest or any Tender.

EDWARD G. HUBBARD,
Clerk of the Council.

Council Offices,
Walton-on-Thames.

ERPINGHAM RURAL DISTRICT COUNCIL.

For SALE, Two SUBMERSIBLE PUMPS and STARTERS, in good condition, but surplus to requirements. Pumping rate, 8,000 g.p.h. at 27ft. head. Made by Pleuger, Type E.63/Via + T.M.200 (415-Volt, 3-phase, 50-cycles, A.C.).

Apply to the Council's Water Superintendent for further particulars and permission to view.

Any reasonable offer for either or both will be considered. Offers should be sent to CLERK OF THE ERPINGHAM RURAL DISTRICT COUNCIL, Sheringham, Norfolk, in plain envelope, suitably endorsed, by 10 a.m. on 19th DECEMBER.

LINCOLNSHIRE RIVER BOARD.

FOR SALE BY TENDER.

One 19RB EXCAVATOR, Machine No. 5536, Class VQBN, Engine No. 208534, Jib No. 13335, Registration No. DIL889, Dragline Equipment only.

Particulars of inspection and Form of Tender may be obtained from the CLERK OF THE LINCOLNSHIRE RIVER BOARD, 50 Wide Bargate, Boston, to whom completed Tenders must be returned by Noon, 21st DECEMBER, 1961.

GWYNEDD RIVER BOARD.

SALE OF EXCAVATORS.

The Board offer for SALE by TENDER Two EXCAVATORS (Ruston 10RB Diesel Draglines with 35ft. Boom), Serial Nos. 21223 and 21225, first registered October, 1956.

These machines can be inspected by arrangement with the Chief Engineer. Tenders, in plain envelope, marked "Tenders for Excavators Nos. 21223 and 21225," to be forwarded to the Chief Engineer, GWYNEDD RIVER BOARD, Highfield, Carnarvon, by not later than 15th DECEMBER, 1961. No Tender Forms issued.

The Board do not bind themselves to accept the highest or any Tender.

BUSINESS OPPORTUNITIES

TO PLASTERING CONTRACTORS. DIVERSIFICATION.—To those firms of first-class reputation for craftsmanship who may be desirous of diversifying their activities, the following should be of interest. Some few years ago, MESSRS. SPRINGHILL PRODUCTS, LTD., of Airdrie, Lanarkshire, introduced from Scandinavia a type of decorative jointless flooring known as "LINOTOL (Regd.)" which had a long history of successful use. Since then this product has been successfully developed, principally in Scotland, and to a lesser extent in England and Wales, where additional Licensees are now desired. Licensees exist at present in Scotland, Newcastle, Birmingham, Brighton and Cardiff, and it is the intention to increase this number in England and Wales to approximately 20, situated strategically throughout this area. This is a project which requires primarily a craft outlook by the principal concerned. The finished job can afford great satisfaction. Very many completed contracts are available for inspection by arrangement. It would appear that it is generally easier to train a top-class Plasterer to this work than any other craftsman. Interested parties should communicate with the firm mentioned above, giving some indication of the type of specialised work to which they are accustomed and the type of employer.

WIREWELD



where you want it —when you want it

Deliveries of Wireweld fabric are made direct to sites anywhere in the country *at short notice*. Wireweld is a high-tensile steel fabric, manufactured from hard drawn steel wire electrically welded at all intersections to B.S. 1221, Part A. It is made in a wide range of sizes in oblong and square mesh.

If you want to put steel into concrete, get in touch with

G.K.N. Reinforcements Ltd.

2nd FLOOR 22 KINGSWAY, LONDON, W.C.2 (CHANCERY 1616)

SMETHWICK: *Smethwick 2111*
MANCHESTER: *Ardwick 1691*
GLASGOW: *Bell 2444*
CARDIFF: *Cardiff 35220*
LEICESTER: *Leicester 25114*
LEEDS: *Leeds 27311*
MIDDLESBROUGH: *Middlesbrough 3843*
SOUTHAMPTON: *Southampton 22167*
BRISTOL: *Bristol 21555*

Quicker on the spot

WITH POWERFUL PNEUMATIC TOOLS!



Why waste money tackling jobs with out-of-date tools ?
Or tie down an expensive compressor for days ?

The 72 LR Hydrovane gives the mobility of the Land-Rover with more power than most 'single-tool' portable compressors you have ever used. Gets through half a dozen jobs in a day—miles apart—or will slog all day on one job without a murmur and with plenty of power in hand. Fully approved by the Rover Company Limited, the 72 LR Hydrovane is easily fitted to all current Land-Rovers. Leaves plenty of room for men and equipment, and can be removed in seconds.

Low first cost, cheap to run, with Hydrovane efficiency, smoothness and reliability. The 72 LR is a wise investment for all authorities and contractors to whom time is money.

Hymatic

HYDROVANE COMPRESSOR Type 72LR
FOR LAND-ROVER MOUNTING

Write for leaflet HY 122 to The Hymatic Engineering Company Limited, Redditch, Worcs

HYDROVANE HYMATIC

TGA H212A

INDEX TO ADVERTISERS

	Page
A	
Abelson & Co. (Engineers), Ltd.	672, 709
Ableson, L. & D., Ltd.	680
Acrow (Engineers), Ltd.	xia
Acworth (Plant Hire), Ltd.	802
Allam, E. P., & Co., Ltd.	665, 678
Allen, John, & Ford (Oxford), Ltd.	761
Armstrong-Whitworth (Metal Industries), Ltd.	xxa
Ash, R., & Son, Ltd.	666
Astley Industrial Trust, Ltd.	677
Atkinsons Agricultural Appliances, Ltd.	688
Atlas-Copco (Great Britain), Ltd.	801
Audax	670, 676
Austin Motor Co., Ltd.	681
B	
Bamford, J. C., (Excavators), Ltd.	ib, iib, iiib, ivb
Barfords of Belton, Ltd.	xvi, xvii
Batley, Ernest, Ltd.	678
Belcher (Radio Services), Ltd.	684
Benford, Ltd.	799
Blackwood-Hodge	Cover i
Blaw Knox, Ltd.	va
Boulder Equipment, Ltd.	700
Bray Construction Equipment Co., Ltd.	iv, v
Bristol Metal Components, Ltd.	804
Bristol Plant Hire, Ltd.	x
British Deutz, Ltd.	xv
British General Insurance Co., Ltd.	729
British Hoist & Crane Co., Ltd.	iii
British Steel Piling Co., Ltd.	688
Broom & Wade, Ltd.	703
Buckton, Ltd.	790
Burlington Plant & Hire, Ltd.	792
Burrows Bros. (Contractors), Ltd.	700
Butterworth, Stanley, Ltd.	678
C	
Caldwells, Ltd.	670
Cartruk, Ltd.	668
Cement Marketing Co., Ltd.	viiib
C.E.T. (Equipment), Ltd.	686
Cheshire Engineering Co., Ltd.	706
Clifton, I., & Sons, Ltd.	ii
Cohen, George, Sons & Co., Ltd.	Cover iv, 712
Compactors Engineering, Ltd.	699
Consolidated Pneumatic Tool Co., Ltd.	730
Construction Machinery, Ltd.	714
Contractors' Services, Ltd.	707
Cornelly Equipment, Ltd.	684
Corrie, J. B., (Flextella), Ltd.	668
Cox & Danks, Ltd.	686
Cox, H., & Sons (Plant Hire), Ltd.	794
Cripps, R., & Co., Ltd.	iia, iiia
D	
Davidson's Paper Sales, Ltd.	679
Davies, R. A., (Midlands), Ltd.	710
Dawson, W. A., Ltd.	682
Denny Mott & Dickson, Ltd.	673
Dew, G., & Co., Ltd.	796
Diving Specialists, Ltd.	799
Doe, Ernest, & Sons, Ltd.	i
Dunlop Footwear, Ltd.	702
E	
Eastwoods Sales, Ltd.	800
Eddison Plant, Ltd.	viib, viiib
Elmco (Great Britain), Ltd.	xxiva
Evans, C., & Sons, Ltd.	678
F	
Flextol Engineering Co., Ltd.	680
Fodens, Ltd.	xx
Ford Motor Co., Ltd.	685, 775
Foster, Arthur, (Constructional Engineers), Ltd.	799
G	
Gaylord, Edwards & Co., Ltd.	792
G.K.N. Reinforcements, Ltd.	727
Goodyear Tyre & Rubber Co., Ltd.	763
Gould Plant Hire, Ltd.	xvia
Greenham Equipments, Ltd.	698
H	
Hardun & Sons, Ltd.	Cover ii
Hergarth of York, Ltd.	xii, xiii
Hood, R., Haggie & Sons, Ltd.	796
Hymatic Engineering Co., Ltd.	728
I	
Industrial Power Units, Ltd.	666
J	
Johnson, C. H., (Machinery), Ltd.	669
K	
Kebric Plant, Ltd.	799
K.L.E. (Plant Hire), Ltd.	704
L	
Leach, Hubert C., Ltd.	802
Lead Wool Co., Ltd.	670
Leaderflush (Doors), Ltd.	vii
Lemand Machinery, Ltd.	666
Leverton of Leeds, Ltd.	ia
Leyland Motors, Ltd.	797
Liner Concrete Machinery Co., Ltd.	688
Lumley (Plant), Ltd.	xi
M	
Mabey & Johnson, Ltd.	711
Machinery (Continental), Ltd.	705
M. & J. Engineers, Ltd.	678
Masonite, Ltd.	786
Massey-Ferguson (U.K.), Ltd.	xxia
Mercantile Credit Co., Ltd.	788
Mills Scaffold Co., Ltd.	xa
Mobile Haulage, Ltd.	682
Moore's Plant, Ltd.	vi, 776
Mountsorrel Granite Co., Ltd.	vb
N	
National Federation of Demolition Contractors	674, 675
N.C.K. Rapier, Ltd.	xviiia, xixa
Neagron (Construction), Ltd	676
P	
Perker, Frederick, Ltd.	665
Pegson, Ltd.	787
Petters, Ltd.	713
Pike, George, Ltd.	765
Pneumatic Tool Service, Ltd.	676
Powell Duffryn Engineering Co., Ltd.	795
Priest, B., & Son, Ltd.	700
Priestman Bros., Ltd.	Cover iii, 702
Public Works Productions (Coventry), Ltd.	668
Pugsley, Joseph, & Sons, Ltd.	676
Pumpire, Ltd.	804
R	
Ransomes and Rapier, Ltd.	viii, ix
Rawlplug Co., Ltd.	683
Road Machines (Drayton), Ltd.	xviii, 704
Roads & Runways (Plant Hire), Ltd.	799
Road Rollers, Ltd.	764
Ruston-Bucyrus, Ltd.	791
S	
Saunders, A. J., (Tractors), Ltd.	671
Saunders, H. A., (Tractors), Ltd.	via, via
Scotney, Tom M., Ltd.	676
Sellers, H., (Leeds), Ltd.	676
Shawnee Poole, Ltd.	xiva, xva, 667, 708
Shell-Mex and B.P., Ltd.	xiv
Site Clearance Co., Ltd.	762
Smith, Thos., & Sons (Rodley), Ltd.	xii
Spencer Wire Co., Ltd.	698
Stanton & Staveley Sales, Ltd.	xiii
Start Pilot, Ltd.	794
Steels Engineering Products, Ltd.	xxiia, xviiia
Stein, Atkinson, Vickers, Hydraulics, Ltd.	iva
Sumo Pumps, Ltd.	793
Survey & General Instrument Co., Ltd.	680
T	
Thermalite Ytong, Ltd.	xiia
Thyssen Shaft Sinking Co., Ltd.	803
Tilley Lamp Co., Ltd.	671
Timeg, Ltd.	671
U	
Unifinance (U.K.), Ltd.	790
United Dominions Trust, Ltd.	785
Universal Divers, Ltd.	804
V	
Vass, L. W., Ltd.	790
Vickers-Armstrongs (Tractors), Ltd.	xa
W	
Waipamur Co., Ltd.	701
Ward, Thos. W., Ltd.	687
Warsop Power Tools, Ltd.	798
Wednesbury Tube Co., Ltd.	ic, iic, iiic, ivc, xviia
Whitlock Bros., Ltd.	viiia
Wood, Pritchett & Partners, Ltd.	792
Wright, V., (Leeds), Ltd.	

Advertisements received too late for Classification

BOROUGH OF ST. IVES (HUNTINGDON).

IMPROVEMENTS TO 42 COUNCIL HOUSES.

TENDERS are invited for the CARRYING OUT of REPAIRS and IMPROVEMENTS to 42 COUNCIL HOUSES situated in the Borough of St. Ives.

Specifications, Forms of Tender and full details of the Improvement Works may be obtained from the Borough Surveyor at the Town Hall, St. Ives, Huntingdon.

Forms of Tender, in plain sealed envelopes endorsed "Council House Improvements," must be received by the undersigned not later than Noon on SATURDAY, the 30th December, 1961.

The Council does not bind itself to accept the lowest or any Tender.

J. D. A. CROMPTON,
Town Clerk.

Town Hall,
St. Ives,
Huntingdon.
5th December, 1961.

METROPOLITAN WATER BOARD.

GANGER, with civil engineering experience, REQUIRED by Metropolitan Water Board for general work on New River between Hoddesdon and Ware. Wages £11 11s. 10d. for 42-hour 5-day week. Appointment to pensionable staff optional to suitable candidate after 12 months' service.

Written applications, stating age and experience, to Resident Supply Engineer, M.W.B. Works, Lea Bridge Road, E.5.

Canvassing disqualifies, and relationship to any member, officer or employee must be disclosed.

S. D. ASKEW,
Clerk of the Board.

EXPERIENCED FOREMAN REQUIRED for roadworks contracts in Somerset. Must have good knowledge of road construction and be able to take charge of a job, with a minimum of supervision.—Write, giving details of experience, to Box V.5278, "The Contract Journal."

AGENT REQUIRED for large building and civil engineering project in Oxfordshire. Commencing salary is attractive, and prospects are bright for the selected candidate.—Write in confidence, with full details, to Personnel Officer, M. J. GLEESON (CONTRACTORS), LTD., Haredon House, London Road, North Cheam, Surrey, quoting Ref. S.AG/1.

REPRESENTATIVE to call on Architects to promote sales of sanitary appliances. A permanent appointment, with good salary and commission. Will consider the provision of car.—Write, giving background of recent appointments, qualifications, and age, to Box V.5287, "The Contract Journal."

THE SOLIHULL BOROUGH COUNCIL

The above Council have the FOLLOWING ITEMS of PLANT for SALE, which have become redundant by the closing of a pumping station in Nov., 1961:—

PUMPING PLANT:

Two 4in. dia. Wallwins Non-chokable Pumps, 320 g.p.m. at 48ft. head, with 12½-h.p. Motors. Complete installation in perfect running order

Two 3in. dia. Wallwins Pumps, with 4-s.p. Motors. In good condition.

Offers for the above items should be sent to the BOROUGH SURVEYOR, 90 Station Road, Solihull, so as to reach him not later than SATURDAY, 16th December, 1961.

GENERAL FOREMAN REQUIRED for contract and development work on the East Sussex coast. Write, stating age, and salary required, to WALTER LLEWELLYN AND SONS, LTD., 16-20 South Street, Eastbourne, Sussex.

SERVICE FITTER REQUIRED for repair and maintenance of contractors' plant on sites in and near London area. Operating daily from main depot in Harrow. Must have current licence.—Write Box V.5279, "The Contract Journal."

WANTED, CARPENTERS and STEELFIXERS. Cooling tower contract.—Apply J. L. KIER AND CO., LTD., No. 2 Site, Drakelow Power Station, Burton-on-Trent.

There is no better medium than

THE CONTRACT JOURNAL

for small classified advertisements

Telephone for
LINAGE RATES *to*
WATerloo 3411

METROPOLITAN BOROUGH OF ISLINGTON.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

ENGINEERING STAFF (PERMANENT).

APPLICATIONS are invited from persons not more than 50 years of age for the FOLLOWING APPOINTMENTS.

(a) Two Surveying / Technical Assistants—A.P.T. III (£960-£1,140 p.a.).
(b) One Tracing Clerk (Male or Female)—A.P.T. I (£645-£815 p.a.). All plus London Weighting.

Applicants for: (a) should have the Intermediate Examination of the Municipal Engineers or Chartered Surveyors, or other appropriate qualifications, and preference will be given to applicants with a sound knowledge of the Town and Country Planning Acts and London Building Acts; (b) should have experience in Municipal Engineering and be appropriately qualified.

Application Forms, returnable by First Post on TUESDAY, 19th December, 1961, obtainable from the Borough Engineer and Surveyor, Town Hall, Upper Street, N.1.

H. DIXON CLARK,
Town Clerk.

MIDDLESBROUGH COUNTY BOROUGH COUNCIL.

PROPOSED ERECTION OF GRANDSTAND AT CLAIRVILLE STADIUM.

TENDERS are invited for the ERECTION of a GRANDSTAND to seat 700 in traditional construction. Bills of Quantities from the Borough Engineer, Municipal Buildings, Middlesbrough. Deposit Two Guineas.

Tenders to TOWN CLERK by 15th JANUARY.

SENIOR DESIGN DRAUGHTSMAN REQUIRED for development department. Must be suitably qualified and experienced in all aspects of processing plant layout, including installation of conveyors, hoppers, screens, crushers, washers, etc. Must be capable of negotiating with manufacturers, and handling projects through all stages. Attractive salary offered. Non-contributory pension scheme. Canteen facilities. Apply to Development Manager, HOVERINGHAM GRAVELS, LTD., Hoveringham, Notts.

COST ACCOUNTANT WANTED, aged 20 to 30 years. Preferably with knowledge of building and able to work on own initiative. Good salary and conditions for right applicant.—Please apply to the Office Manager, HENRY JAMES (MANSFIELD), LTD., Station Street, Mansfield.

THE
BRITISH GENERAL
FOR
CONTRACT
GUARANTEE
BONDS

Write for Information—

THE BRITISH GENERAL INSURANCE COMPANY LIMITED

Head Office: 24, CORNHILL, LONDON, E.C.3

Telephone: MANSION 9800

Take a look under the canopy!



Examples of "Power Vane" Rotary Compressors selected from the six models in capacities of 125, 175, 210, 260, 365 and 600 c.f.m.

POWER VANE ROTARY COMPRESSORS

Good looks . . . . good performance—you get both in this new CP 260 compressor! Under that striking two-tone canopy is the famous 'Power Vane' rotary unit, a winner for rugged and trouble-free service even in the toughest conditions. This 'middleweight' in the CP range is the answer to the demand for a machine of this capacity. Simple, robust and completely reliable, the Model 260-RO-2 'Power Vane' compressor in its practical new styling, has ample capacity for the operation of four or five tools.

Land Rover-mounted 'Power Vane' 125-RO-2 Rotary Compressor



Air power, anywhere, and quickly! This trouble-free, hard-working unit can save you valuable time and keep operating costs at the lowest level.

125 c.f.m. 'Power Vane' Rotary Compressor



Today's most outstanding two-tool unit. Lightweight and new 'easy handling' features provide greater manoeuvrability.

Consolidated Pneumatic

CONSOLIDATED PNEUMATIC TOOL CO. LTD
Dawes Road · London · S.W.6

CP 261

THE
CONTRACT JOURNAL
INCORPORATING
THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

THE CONTRACT JOURNAL
incorporating
THE BRITISH CONSTRUCTIONAL ENGINEER
and
THE CONTRACTOR
Established 1879

No. 4,302 Vol. CLXXXIV Dec. 7, 1961

Editor:
LAWRENCE McCARTHY

PRINCIPAL CONTENTS

PAGE

Wentbridge Viaduct: A Reversal of Bridge Building Practice 732
£1½m. "Package" Deal Contract Completed in 77 Weeks 735
Yorkshire Derwent Aqueduct: Design of Welded Steel Pipeline 737
Spring Tenders for £1½m. Feltham Development 739
An Economist Comments 740
Blackwall Tunnel Duplication: Grouting of Sand and Gravel 741
A Lawyer Considers 742
Swansea Dock Gate Costs Saved by R.C. Caisson Design 743
Minister Approves £3m. "Heads of the Valley" Road Contract 744
Late Construction News 744
Reconstruction of Manchester Department Store 745
Men and Movements 746
Wage Claims in Building Industry ... 747
134ft. Span Steel-framed Hangar at Southend Airport 749
Talking of Safety, by "Dragee" 766
New Commissions for Private Architects 767
For the Diary 768
Trade and Company News 769
CURRENT CONSTRUCTIONAL ACTIVITIES:
Projects 750
Contracts 753
Awards 759

Publishers

The Contract Journal Co., Ltd.,
32 Southwark Bridge Road, London, S.E.1.
Telephone: Waterloo 3411 (7 lines).
Telegrams: "Seejasir," Sedist, London.

Subscriptions

"The Contract Journal" can be supplied direct from the above offices. Subscriptions, payable in advance: Yearly, £5 4s. (post free); half-yearly, £2 12s. An order form appears on page 808.

Advertisements

Advertisement rates may be obtained on application to R. Binfield, Advertisement Manager.

INDEPENDENT INQUIRY IS STILL NEEDED

LAST July our special correspondent unravelled the facts, arguments and counter arguments about the use of direct labour by local authorities. He showed how direct labour was able to thus insulate itself from fluctuations in the construction programme because it did not have to compete for its work and had become geared to non-competitive continuity work. He exposed as conflicting and circular, the arguments of its exponents that direct labour needs continuity of work because of the restrictions on its operations and that these restrictions must be removed in order to give it continuity of work. His main conclusion was that despite the tremendous advantage of continuity it seemed that direct labour was unable to produce work at a lower cost than contractors. He claimed that there was much evidence to suggest that beyond a certain point the interests of the ratepayers would be better served if local authorities used the contract system rather than direct labour.

No one has disputed the facts and figures that our special correspondent produced. But certain new figures about the size of direct labour have recently been published. They show that the number of local authority direct labour men employed in separate building and civil engineering departments had at June this year increased to 103,000 compared with 100,000 in 1960 and 70,000 in 1955. But the publication of certain detailed figures about the net output per person employed for various sizes of local authority direct labour organisations now seems to have been discontinued.

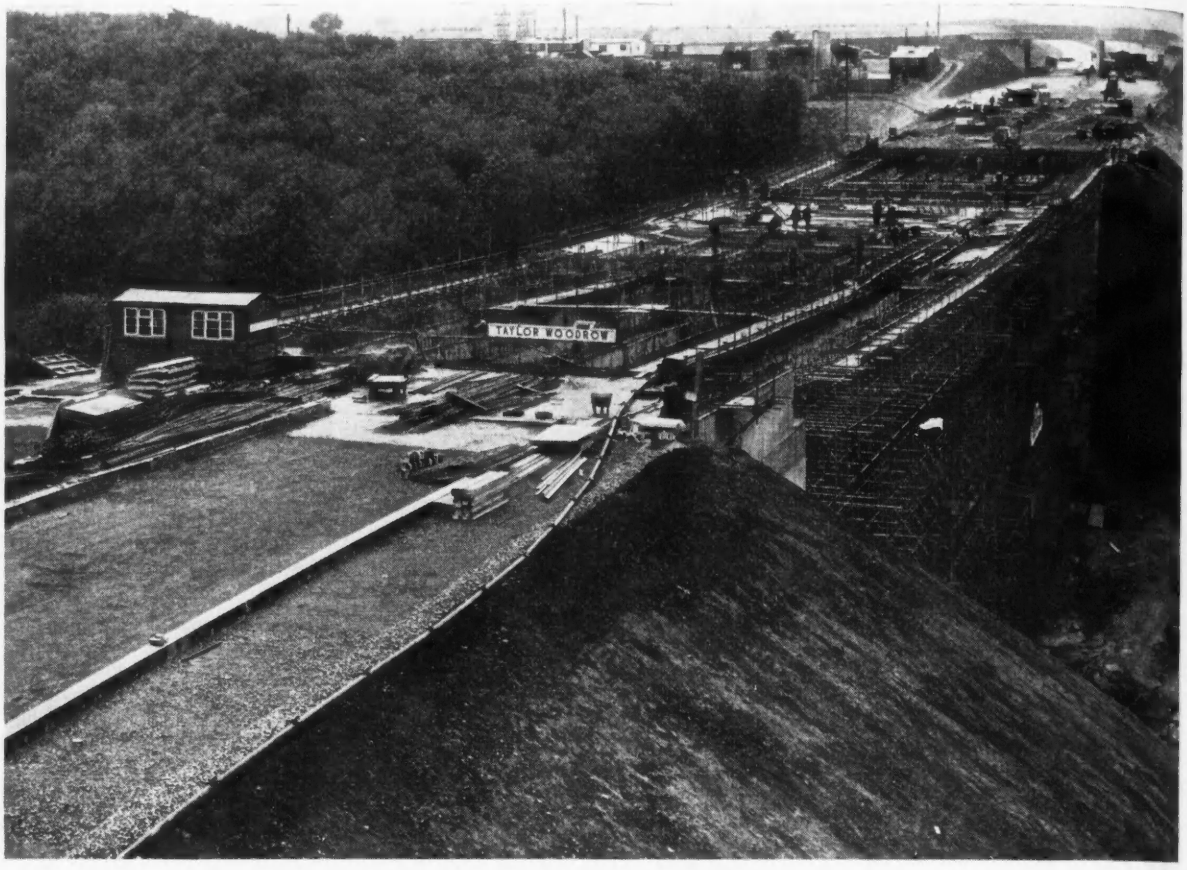
With regard to our special correspondent's conclusions, Lt.-Col. Newman said that the Federation of Civil Engineering Contractors agreed with them. But Mrs. Elizabeth Layton, who was taken to task for whitewashing direct labour, evidently according to her recent address to the R.I.B.A. still adheres to her view that direct labour presents a wonderful instrument for experiment to local authorities. There is a striking contrast in Mrs. Elizabeth Layton's book "Building by Local Authorities" between the chapter dealing with the use of private architects and the one dealing with direct labour. She roundly condemns local authorities for not employing private architects and says that they should do so as a matter of policy and not as a matter of expediency. But she had no similar strictures for local authorities who exclude private contractors in favour of their direct labour departments.

There have been some general statements in support of direct labour in the past few months. Mr. B. Butler, highways superintendent, Battersea, said that complaints about direct labour workmen standing idle for an exaggerated time were rarely justified on investigation. But he admitted that direct labour was in jeopardy because those responsible for wage rates for local government employees had failed dismally in their duty. Indeed his case in support of direct labour could be read as an indictment.

Mr. J. Ellison, works manager, Bolton Corporation, claimed that public building maintenance carried out by direct labour had often proved to be of financial benefit to the local authority. But his remarks on competition were enlightening. He said that the competition phobia can assume unreasonable proportions when due to contractor's prices being accepted for works of a minor nature the established direct labour force in an authority may ultimately be faced with redundancy.

This unhelpful chronicle of events makes all the more dismal reading in the light of the recent report on the direct labour activities of the Stoke Newington Borough Council. A big housing scheme for which the direct labour department quoted a price of £255,000 and a completion time of 16 months eventually cost £316,048 and took 33 months. The most disquieting feature of the report is that the estimates of both price and time were originally higher than those quoted but were apparently cut to make the tender more competitive.

Obviously the competition between direct labour and contractors must be on level terms. The main problem, however, is not so much unfair competition, as the almost total absence of competition as far as direct labour is concerned. In July we said that the direct labour issue affected millions of pounds of public money which was being spent apparently without the check of competition and without the safeguards inherent in the contract system. We argued that an independent inquiry into this important issue would clear the air. We still think so.



A view of the Wentbridge viaduct during construction



Fixing plywood shutters for soffit of sloping leg

CONSTRUCTION OF WENTBRIDGE VIADUCT

A Reversal of Bridge Building Practice



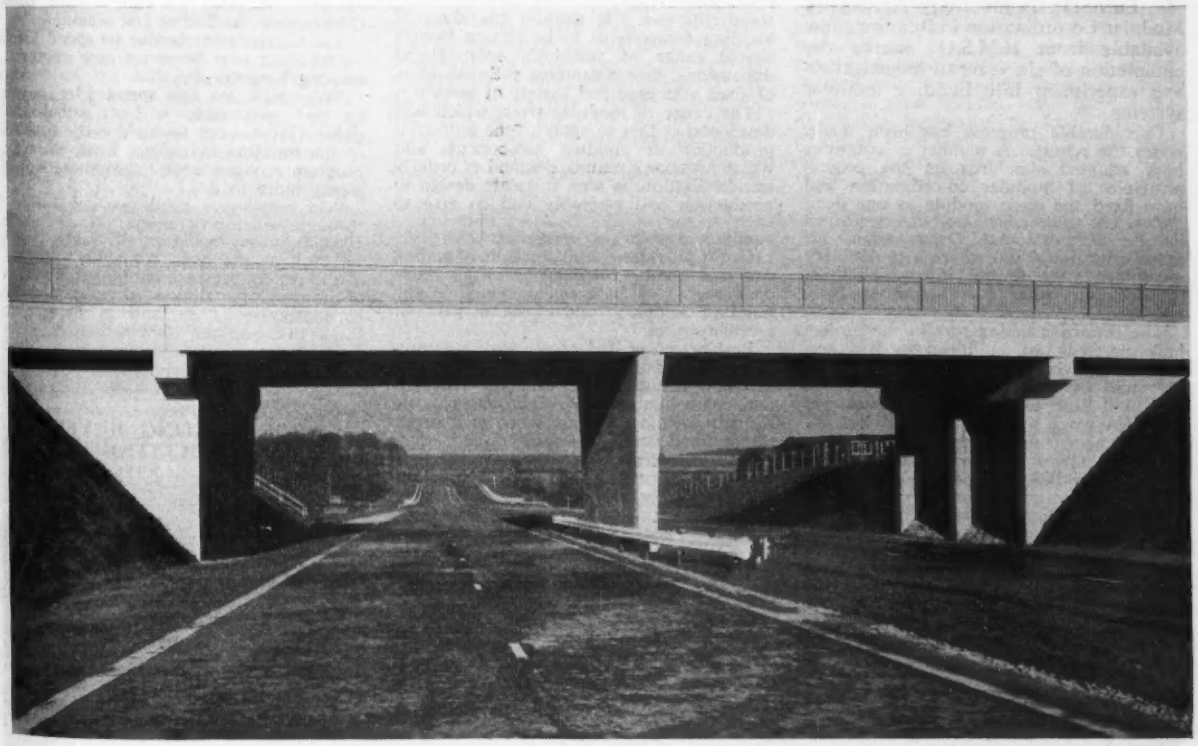
Aerial view of the viaduct from the south-east

AN unusual feature of the construction of the Wentbridge Viaduct, which is to be officially opened next Monday, was that the deck was well advanced before the legs were completed, a reversal of bridge building practice. Built to a design approved by the Royal Fine Art Commission, it is of in-situ concrete and is the largest viaduct of its kind in Europe.

Nearly 100ft. high and 470ft. long, the prestressed concrete viaduct spans a river valley and is part of a two-mile by-pass, the latest addition to the Great North Road improvements, which enables Wentbridge village and its steep winding approaches to be detoured.

The main deck is a post-tensioned, concrete box girder, continuous over three spans and with cantilevered footpaths. It stands on two pairs of raking leg supports of reinforced concrete cellular construction with a 308ft. span at ground level. Each leg tapers from 20ft. by 6ft. at the top of their incline to 15ft. by 3ft. at the bottom, and the legs divide the deck into a centre span of 190ft. and two side spans of 140ft. each. The legs are pinned at top and bottom with precast concrete hinges and founded on solid mass concrete blocks taken down into sandstone rock.

The viaduct deck is fixed at the south abutment and free at the north. The abutments are similar at each end, consisting of cellular box footings supporting skeleton walls which carry the abutment deck and are of reinforced concrete, except



The bridge carrying Went Edge Road over the by-pass

for the concrete-encased steel beams supporting the bearings.

Construction of Abutments

Construction of the abutments was a considerable civil engineering feat in itself, involving the placing of 110,000 cu. yd. of rock fill in the approach embankments (30,000 cu. yd. of which were dug from a quarry adjoining the site); and, at the south abutment, the use of piled concrete supports, consisting of 29 40in. diameter piles, approximately 65ft. deep. The piling was necessary because the ground at normal level was not suitable. Exploratory drilling found that a suitable bed of sandstone occurred at a depth of about 60ft.

For stability reasons, construction of the viaduct abutments was geared to the rate of placing fill in the embankment to the extent that the construction could not "lead" the embankment by more than 25ft. in height. The major part of the construction lies underneath the approach embankment fill—for instance the south abutment is 87ft. high with only 30ft. visible.

120 Miles of Tube for Centering

Another engineering feat was involved in the centering of the bridge structure. A scaffold birdcage in 4ft. squares using about 120 miles of tubing (150,000ft. for the standards and 480,000ft. for the horizontal and bracing members) was founded on a temporary reinforced concrete raft laid across the valley floor. Erection of the centering began at the end of October, 1960, and was substantially complete by the end of March last. Construction of the viaduct then commenced in six cells each 10ft. wide. The top slab is 14in. thick and the bottom slab, 9in. thick for the most part, increasing to 18in. at the haunches.

Concrete was produced from plants set up on either side of the viaduct and approximately 17,000 cu. yd. has been poured, some of it, particularly for the legs, under unusual conditions because of the necessary difficulties of access. The great bulk of the concrete was placed by concrete pumps, with air-driven conveyors being used for parts of the sloping legs. Some 17,000 cu. yd. of excavation has also been carried out, and 700 tons on steel reinforcement used, on this section of the projects.

The main prestressing was by means of 18¼ miles of 1¼in. diameter strand wire cables. The cap cables over the haunches contain about 20 miles of ¼in. diameter strand and the vertical prestressing of the deck used about two miles of 0.276in. diameter high tensile wire.

The final stressing operation was carried out by various types of hydraulic jacks, and after stressing, the strands were encased in fine concrete for protection.

Before and during stressing, both ends of the viaduct were free to move in a longitudinal direction. Expansion joints at the fixed end were formed of butyl rubber (precompressed). At the north, or free, end, a comb-type expansion joint was used, together with mild steel rocker bearings.

The By-pass

The by-pass leaves the old road eastwards and about three-quarters of a mile to the south of Wentbridge, rejoining it at a similar distance beyond the village. The average width is 87ft. (the viaduct overall width is 78ft. 4in., 76ft. between parapets) and it incorporates dual carriageways, each 24ft. wide; a central reservation narrowing to 10ft. wide at the viaduct but generally wider; and margins on either side of the carriageways. The margins outside the viaduct area are 12ft. wide and include 8ft. of hard shoulders.

The by-pass approaches the viaduct down slight slopes in each direction but gradients do not exceed 1 in 30. Sight distances exceed 600ft. and curves have the largest possible radii, design speed being 60 miles an hour.

The carriageway is constructed of 6in. sub-base of either compacted shale or cement stabilised base (in the areas of fill and cut respectively); an 8in. base of premixed cement ground granular material and a 4in. thick two-course asphalt surface, the two courses consisting of 2½in. of hot rolled asphalt base and 1½in. of wearing course. The road construction has involved the excavation of 200,000 cu. yd. of material, of which a large proportion was hard limestone. This operation was executed with the use of traxcavators and lorries, the earth being shattered with blasting and a Kelley ripper.

Drainage is by French drains, constructed at the sides of the road and discharging into the River Went.

Went Edge Bridge

In addition to the viaduct, a bridge has been constructed over the by-pass at the southern, or Doncaster, end of the viaduct, to further speed the flow of traffic. This carries the existing Went Edge Road, over the by-pass, some 400ft. of new road having been constructed with the level raised by up to 6ft.

The bridge consists of two reinforced concrete skeleton wall abutments with a central reinforced pier. Twenty-two precast prestressed concrete beams, each 40ft. long and weighing nine tons, formed the bridge deck and these were subsequently prestressed on site in a lateral direction. Some 500 cu. yd. of concrete was placed in situ and 30 tons of reinforcing steel fixed. The square span between abutments is 80ft. and the width between parapets, 36ft.

The viaduct and by-pass were constructed for West Riding County Council, agent authority for the Ministry of Transport, under the direction of Col. S. Maynard Lovell, O.B.E., E.R.D., T.D., county engineer and surveyor, by Taylor Woodrow Construction, Ltd., who began work in October. The contractors are now engaged on the restoration of the site, including the dismantling of the remainder of the centering, re-diversion of the Went to its original bed, and landscaping.

MODULAR STANDARDISATION IS "INDISPENSABLE TO BUILDING"

THE second and final report of the European Productivity Agency on Modular Co-ordination in Building, now available from H.M.S.O., marks the completion of six years of investigation and experiment into building modular systems.

Considerable progress has been made, states the report. A number of countries have adopted standards on the general principles of modular co-ordination and have fixed the basic module as one decimeter. The subject has also been developed in the International Organisation for Standardisation (ISO) where a preliminary recommendation for an international set of rules on modular co-ordination has been approved.

The countries taking part in the project have erected test buildings to test and validate the theory established during the first part of the project. The European Coal and Steel Community has supported the EPA work by including in a housing programme of more than 1,000 miners' dwellings major studies on the use of modular building components.

Experiments and studies carried out during the second phase of the project have confirmed the validity of the modular system. The national experts engaged in the project consider that standardisation in building on a modular basis is indispensable for facilitating modern production methods and favouring increased competition, at the national as well as at the international level, within an industry which so far has been mainly traditional and local in character.

A summary of the 225-page report states that it is evident that modular co-ordination, based as it is on the two systems of measurement in general use, can now provide the building industries of the world with a firm common ground for understanding and a sound framework for standardisation. It enables the sizes of building components to be chosen from a simple range of additively inter-related dimensions, thus combining rationalisation of sizes with ease and variety of assembly.

The range of modular sizes, which was developed at first to apply to the industrial production of building components and which arose as a natural demand of orderly standardisation, is seen to relate design to production and assembly and to give to each sector of the building industry a common system of reference. To this extent it provides a simple means of ending conflicts and breaking down those divisions which have been created in the building industry under the impact of mechanisation.

Prefabrication and traditional construction now appear as different forms of assembly resulting from different materials and components, all of which can now be brought within the framework of a single dimensional system. Engineers and architects, so often considered as being in opposition, are now able to work to the same reference grid. The carcase and the services, which in the past have frequently been in each other's way and so antagonistic, can now occupy their allotted spaces in the overall modular design.

GREENHAM ACQUIRE S. V. NEWBOLD AND CO.

Greenham Tool Co., Ltd., London Road, Isleworth, Middx., have acquired the assets of S. V. Newbold and Co., Ltd., Southampton, suppliers of contractors' tools and protective clothing, and the company is now operating as Greenham's Southampton branch.

£56M. N. IRELAND ROAD PROGRAMME

The Northern Ireland Government is to spend £56m. on the road programme in the next five years stated Mr. W. J. Morgan, Minister of Health and Local Government, in Belfast last week.

The Government is also to spend £36m. on building new hospitals and improving existing hospitals, he said.

"We think we can spend £3m. a year on this programme without unbalancing either Government finance or the capacity of the building industry. Even when the programme nears completion there will be plenty more to do.

"On housing, I think we are half-way through our programme, having built 100,000 houses in the last 15 years. When we look at the need for slum clearance, at the steady pressure for better standards of housing, population increase, and the concentration of demand in Belfast, we think that another 100,000 houses in the next 15 years is a target within our compass," the Minister said.

CONTRACTING BUYERS ASSOCIATION

C.E.B.B.A. Appoint Officers

At the November meeting of the recently formed Civil Engineering and Building Buyers Association the caretaker committee announced the appointment of the following officers who will hold office until the first annual general meeting to be held on March 28, 1962.

Chairman—R. S. Cox (Howard Farrow, Ltd.); treasurer—E. W. Pond (Sir Lindsay Parkinson and Co., Ltd.); secretary—R. Westhenry (Ford and Walton, Ltd.).

Two sub-committees were formed to study and report on membership and education.

The next meeting is on Wednesday December 20, 1961.

£1½M. "PACKAGE" DEAL CONTRACT COMPLETED IN 77 WEEKS

Queenborough Development for Abbott Laboratories

THROUGH one of the worst ever winters for rain, work proceeded without pause on the construction of a new £1½ million development at Queenborough, Kent, for Abbott Laboratories with the result that the whole scheme has been completed within 77 weeks.

This speed of construction has been achieved by the "package" deal type of contract, the entire development — site acquisition, planning and construction — being put in the hands of C.A.S. (Industrial Developments), Ltd., who, engaging their own consultants, contractors and sub-contractors, quoted a lump sum for project.

The site at Queenborough covers 120 acres mostly on reclaimed land, and provides space if needed for further expansion of present buildings by up to 500 per cent. It is bounded by the Swale on the west side. There are five separate main buildings comprising an administration block, pharmaceutical block and canteen, chemical block, boiler house and chemical warehouse, and maintenance block. These are widely dispersed on the site, with the boiler house to the north and the administration block to the south.

With the exception of the administration, canteen and chemical blocks, all the buildings are single-storey. They are generally framed in structural steelwork, apart from the administration and canteen blocks which are constructed in reinforced concrete. Some 623 tons of structural steelwork were used in the framework.

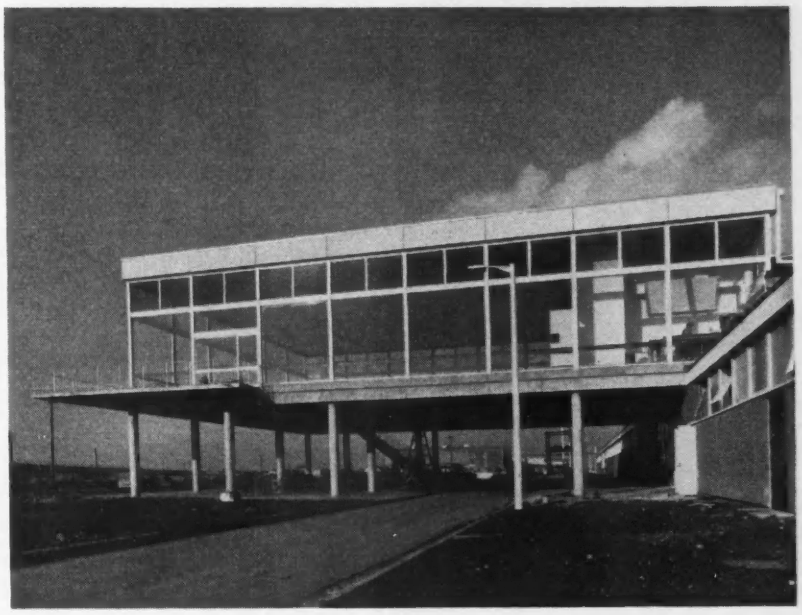
Piling and Drainage

The poor nature of the subsoil necessitated the founding of the new buildings on piles. Pile tests were carried out and from their results the final pile lengths were determined. Generally the piles were required to carry loads of between 35 and 53 tons and for this purpose it was found that a bored in-situ pile of 17in. nominal diameter was most suitable. The lengths varied between 30ft. and 50ft.

A total of 1,700 piles were sunk, and by arranging for a mass concrete blinding surface for the piling rigs to work off, the majority of the piling was completed in 18 weeks between May and September, 1960.

The general level of the site is about mean tide level in the Swale on which it abuts. The drainage of the site, therefore, required particular attention both as regards surface-water run-off and also disposal of the factory effluent.

Before its present development surface water drainage was by way of a number of small intersecting ditches through which the water eventually reached a 24in. iron pipe under the sea-wall. This pipe had been laid in recent years and was provided with a flap valve at the seaward end.

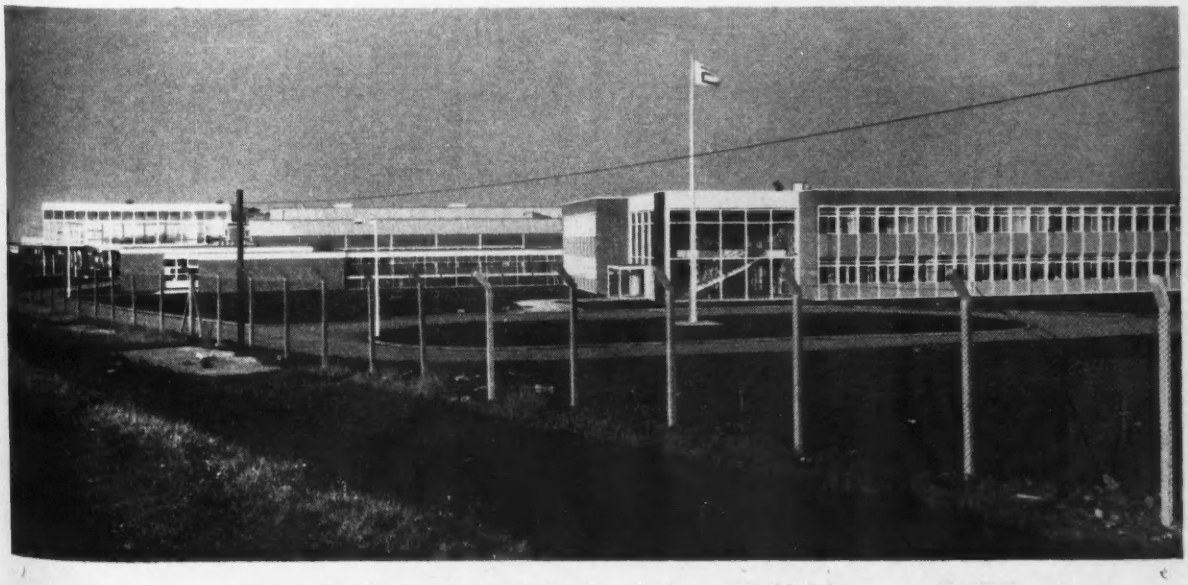


Side view of the canteen

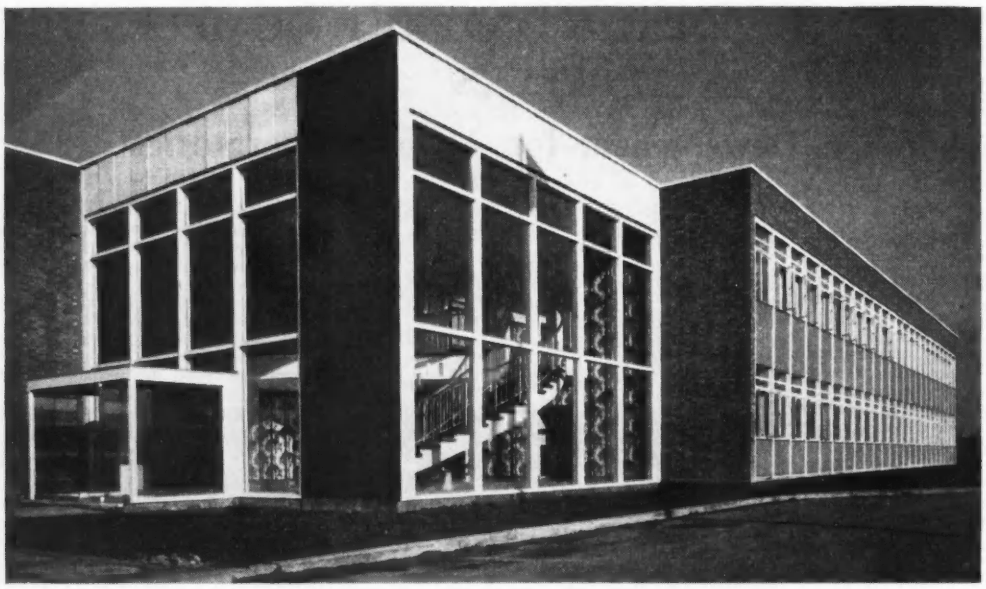
The small ditches have been replaced by concrete pipe surface water sewers, discharging to a main storage ditch to store the run-off during the tide locked periods.

The basis of calculation is 1in. of rain during any six-hour period (estimated frequency, annually). but 4in. of rain in the same period will flood the grassed areas of the site only to a depth of 3in., and this would run off during the succeeding low-tide period. The single existing flap valve on the 24in. outfall has been backed up by a second flap valve in a reinforced concrete chamber at the landward end of the pipe.

Chemical wastes and sanitary sewage could not be discharged into the Swale along with the surface water without the risk of offence, as the tidal currents in the Swale were considered too weak to carry the polluting matter away. The construction of a separate outfall to the river Medway was considered but this would have been more expensive than an inland rising main to the existing Sheerness outfall works at West Minster. The clay of the district is aggressive to iron, and the chemical wastes may be sufficiently acid to affect abestos-cement pipes; all rising mains are therefore of "Chemidus" pipe



General view of the administration and pharmaceutical buildings



Administration block. The glass-walled entrance hall connects two blocks which form an L-shape on plan

which will be unaffected by the acids and not appreciably affected by the organic solvents also present in the wastes.

The foul drainage system within the site comprises separate sumps and pumping stations for sanitary sewage and chemical wastes, with provision for neutralisation of excessive concentrations of acid in the wastes before pumping to the effluent storage tank. There the effluent is stored between tides for discharge on the first of the ebb, through the Sheerness outfall sewer.

Extensive use has been made of supersulphate cement in the construction of the sumps and storage tank, and a clean water flushing tank is included so that the 4,000ft. of Chemidus pipe can be flushed through with clean water when necessary to remove accumulations or organic solvents within it.

Administration Block

The two-storey administration block contains head offices, board room, conference room and a fully glazed entrance hall. It forms an L-shape on plan and consists of two blocks of 120ft. by 30ft. and 43ft. by 55ft. connected at the intersection by the entrance hall and staircase enclosure.

The load-bearing element of the superstructure comprises 13¼in. by 4½in. mullions at 5ft. centres on the external walls and a centre row of 21in. by 10in. columns at 20ft. centres internally. The first floor and roof, which are of 8in. and 7½in. hollow tile construction respectively, span from the perimeter beams into the wide spine beam which is 12in. deep.

End walls are of brick and the filling between the structural mullions is of lightweight block with mineralite rendering externally and expanded polystyrene insulation internally.

The main staircase in the entrance hall is most imposing and of helical form. The helix describes an arc of about 117 degrees while rising through a height of 11ft. 6in. The helix is not a true circle on plan but is composed of the arcs of two circles of radii 11ft. 6in. and 12ft. 6in.

The super load of the first floor is 94lb. per sq. ft., including finishes and partitions.

Pharmaceutical Block and Canteen

With a total floor area of 11,000 sq. ft., the pharmaceutical block is the largest on the site. The ground slab is suspended and the building is supported on a steel frame with stanchions at 20ft. centres carrying trusses which span 50ft. The clear height of the building is 17ft. internally.

In the main block approximately half the area is devoted to production while the remainder is for warehousing raw materials, packing materials and finished goods. Road access is provided to the warehouse through a loading bay used both for delivery and despatch.

External walls are of brick, with insulated metal panels above, except for the east wall. This is a temporary wall and is constructed in lightweight concrete blocks to facilitate its removal when the building is extended.

At the front is a lower block which houses production offices, cloakrooms and sanitary accommodation, plant rooms and laboratories.

Between the front block and the production area is a wide access corridor intended for the movement of personnel and visitors. Above this corridor is a service corridor 10ft. wide and some 8ft. high used for the distribution of services. All the main services, steam, process water, electrical, and the like, pass along the corridor. In addition concrete platforms are provided over paths of the manufacturing areas on which are placed calorifiers, fans and other local service units.

Attached to the pharmaceutical block is the canteen. This is a two-storey structure, rectangular on plan, approximately 116ft. by 60ft.

Circular columns, 15in. diameter, are spaced at centres of 15ft., 30ft. and 15ft. across the building and at alternating centres of 15ft. and 30ft. along its length.

The first floor consists of two 15ft. wide edge panels, 24in. deep, spanning alternatively 15ft. and 30ft. and a 30ft. wide, 12in. deep, centre panel spanning across the building on to the edge strips. The edge strips support the roof section which is based on a steel lattice frame carried on box section columns at 10ft. centres.

At first floor level a 12ft. cantilevered access balcony wraps around the front and part of two sides of the building. This balcony is 9in. deep.

The 5ft. wide main external staircase is composed of precast treads, 3½in. maximum thickness, carried on a spine beam cantilevered from the foundation. The super load of the floor varies from 110lb. to 128lb. per sq. ft.

Chemical Block

The chemical block, running from east to west, is used for production and is virtually a single-storey building having

(Concluded on page 738)



Entrance hall of the administration block

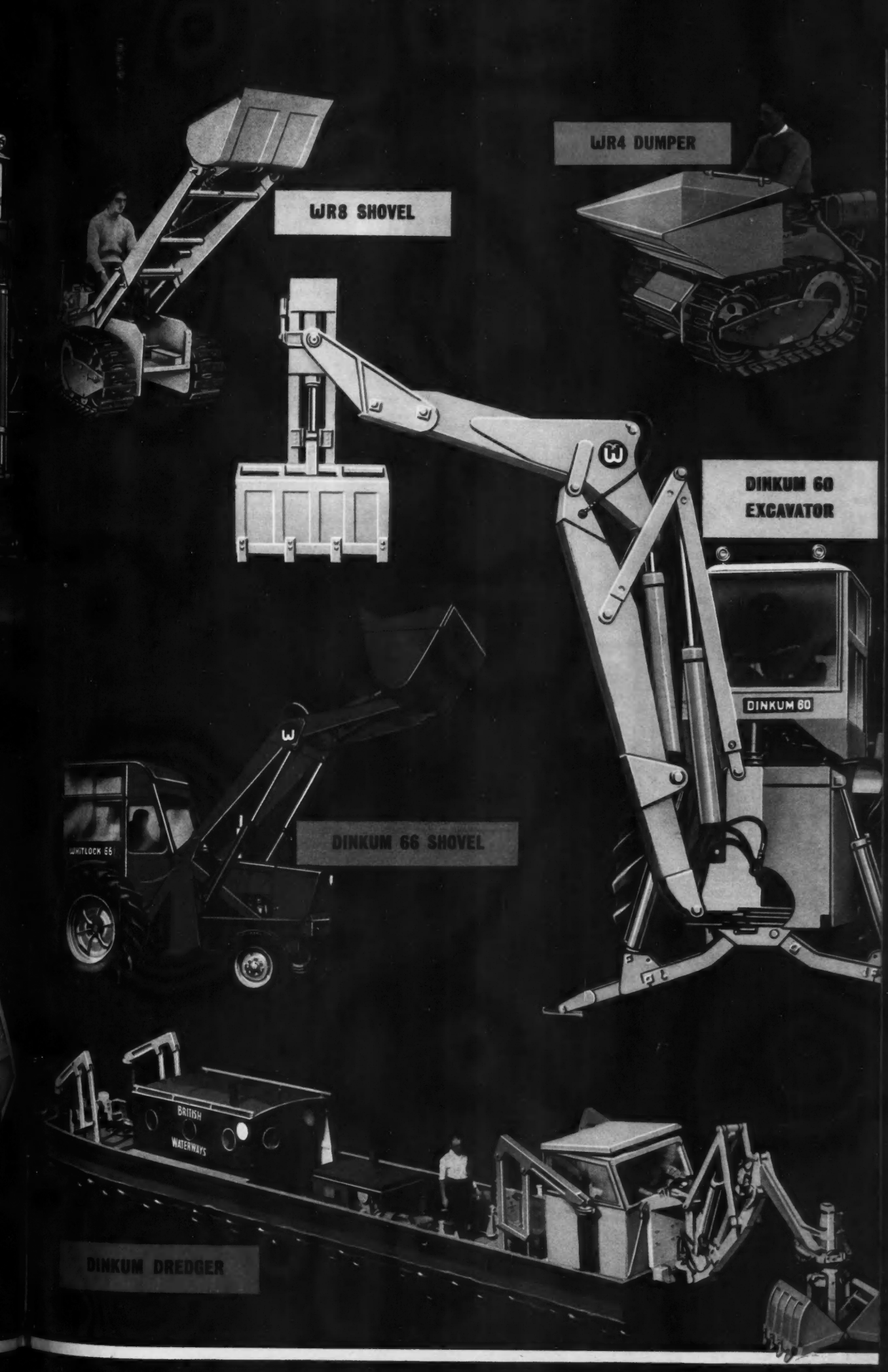
"Best in the world"



WHiTLOCK

EARTHMOVING
EQUIPMENT


WHiTLOCK
DINKUM MAJOR
POWER SHOVEL
DINKUM SUPER MAJOR
WHiTLOCK OFFSET EXCAVATOR
WHITLOCK D-D 70
WB 70
DINKUM DUMPER 70
WHiTLOCK BROS LTD.



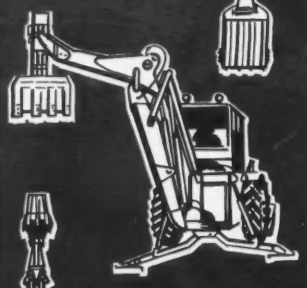
LDHAM ESSEX.

Telex 1896
Telephone : 305 (10 lines)



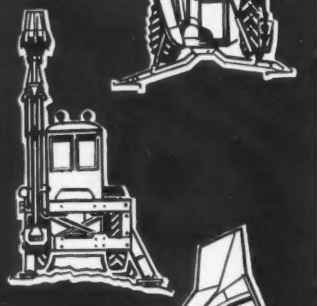
DINKUM SUPER MAJOR

Worthy successor to the World Renowned Dinkum Major and Power Shovel. Improved features include a Luxury Cab and Independent Hydraulic Stabilisers with Outriggers adjustable for spread from 6′ 6″ to a maximum of 13′ 6″. Will dig to 13′ 6″ and trenches from 12″ to 57″ in width.



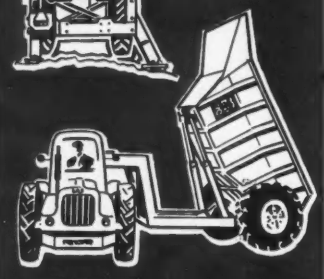
DINKUM 60 EXCAVATOR

The 'Big Guns' of the Dinkum Range of Excavators with Sintered Bronze Clutch, Drop Forged Links, Heavy Duty Axle Assembly, Pins and Bearings, and a host of Refinements. Excavates to 17′ with Extension. Available with a very wide range of worthwhile Attachments including the Whitlock Exclusive Hydraulic Power Grab for Square Holes.



DINKUM OFFSET EXCAVATOR

A New and Versatile Excavator—packed with power. Rapid change-over under hydraulic power for Left, Right or Mid-mounted operating positions (No dismantling—No disconnecting of Hoses). Incorporates unique system of slew and Independent Hydraulic Adjustable Stabilisers pivoting on a Wide Base Frame.



DINKUM DUMPER 70

A Heavy Duty 10-ton Work-Tested Dumper with Hydraulic Steering, a 180° Standing Lock and a high angle tip Body of easy clean contour. The most economical of Muck Shifters with an inherent capacity for powerful traction. Available in two models with 4-cyl. 52 BHP or 6-cyl. 85 BHP Power Unit or with Torque Converter.



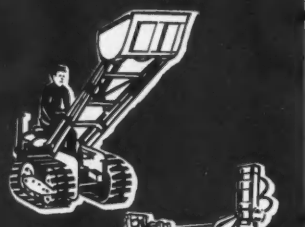
DINKUM 66 SHOVEL

A one yard Shovel of high performance and output. Available as an independent unit or combined with the Model 60 Excavator. Dump over-reach 4′ 6″. Lift height 13′ 4″ or 16′ 6″ with Extension. Additional Attachments include Builders Forklift elevating one ton to 17′, Crane Jibs, Dozablades, Overhead Maintenance Platform, Road Roll, etc.



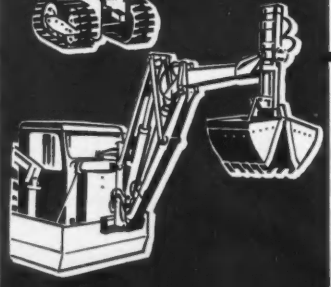
WR4 DUMPER

Small and highly manoeuvrable, this Industrial Crawler Dumper of 15 cwt. capacity will work under arduous conditions, in confined spaces and on gradients of 1 in 3. Having an extremely low ground pressure is ideal for operating on sludge and filter beds without damage to clinker.



WR8 SHOVEL

This Light Tracked Hydraulic Shovel revolutionises the clearance of sludge on filter beds. Much in demand for loading, backfilling and skimming in confined spaces. Like the WR-4 Dumper is offered with economical Diesel or Petrol engines, or with Gas Conversion for working underground and in Ships' Holds.



DINKUM DREDGER

As used on Britain's Waterways. These Self-Propelled Hydraulic Dredgers have a phenomenal output dredging in water 3′ 6″ to 10′ deep with a 3/4 yard Grab. Compact and easy to handle they are fully equipped with Control Cab, Crew's Quarters, Winches, etc.

WHITLOCK BROS LTD

GREAT YELDHAM · ESSEX

Telephone: 305 (10 Lines) Telex: 1896

YORKSHIRE DERWENT AQUEDUCT

Design of Welded Steel Pipeline

THE planning and design of the Yorkshire Derwent Aqueduct formed the subject of a Paper presented last week at the Winter General Meeting of the Institution of Water Engineers by MR. JOHN S. M. WILLIS, B.Sc., A.M.I.C.E., engineer in charge of the Yorkshire Derwent Scheme, Sheffield Corporation Waterworks.

The Yorkshire Derwent Scheme, of which the aqueduct forms the major part, was first promoted in 1957; powers for the works were obtained early in 1961; and the scheme is scheduled to become operational in 1965.

For over 200 years Sheffield, with most other West Riding towns, has obtained water from impounding reservoirs in the Pennines. By the beginning of the century the Corporation had powers to construct reservoirs on all the major available sites; since then these works have been completed as required. Trends show that by 1965 the City will face a deficiency of water. This date is set by the termination of bulk purchase agreements; the deficiency and the date are therefore real, and not merely policy decisions of how far demand may overtake "safe yield" before action is taken.

Sheffield therefore carried out a survey, from which it was concluded that the Yorkshire River Derwent was the best, and probably the only, major new source of water that could be readily purified. Since the river is a potential source for most of the West Riding, the City Council initiated consultations with other water undertakings. At a joint conference held in December 1957 it was decided that Sheffield, Leeds, Barnsley, and Rotherham were all interested in the immediate promotion of a scheme.

It was agreed that this scheme should be designed and operated by Sheffield, and would form part of the Sheffield Water Undertaking, with the other three towns retaining rights of supply and accepting financial obligations.

The intake and treatment works are to be at Elvington, just above the tidal limit of the river.

Works Involved

The term "aqueduct" used in the author's Paper, has been used throughout the progress of the scheme to denote the works to carry water from the clear-water tank at Elvington to the three points of supply. These works comprise the pipeline, reservoirs, pumping plant, and the signalling and control systems.

Dealing with the pipeline in the course of his Paper Mr. Willis said:

The aqueduct pipeline has to carry water from 25ft. O.D. at Elvington up to 455ft. O.D. at Hoober. The supply in the pipeline is to be safeguarded by storage at the delivery terminal, rather than by dual lines; the basic problem of design was therefore to determine what size of single pipe was the most economical.

For a given delivery, the economic size can be determined by plotting total costs (capital charges plus pumping) and reading the size that gives the least cost. However, future increase in demand for water in most of the West Riding will probably fall upon the Yorkshire Derwent; and although the initial abstraction is only 15 m.g.d. it is estimated that, with proper reservoiring in the head waters, the river might be made to yield a constant supply of perhaps 100 m.g.d. The pipeline therefore had to be designed upon the basis of an increasing flow, derived from the trends of demand of the water undertakings in the West Riding.

There is no exact answer, no unique solution giving the "best" size of pipe, but the analysis did show the implications of selecting any given size for each duty. It appeared reasonable and consistent to select sizes giving the "least total cost" over a period of about 35 years for each leg of the aqueduct pipeline. These are:

Elvington to Brayton Barff, 42in.; Brayton Barff to Frickley, 38in.; and Frickley to Hoober, 36in.

In view of the likely expansion of the source, the whole pipeline has been designed so that it may conveniently form one of a nest of up to four similar pipes. These lines have been named "Line One, Line Two", etc. The pipe to be laid under the present proposals is Line One and lies at the south-east of the hypothetical nest of four.

Pipe Material

The choice of pipes lay between steel, spun iron, prestressed concrete, spheroidal-graphite iron, and cast iron.

The choice was affected by:

(a) The large capital outlay involved and hence the desirability of postponing expenditure until as near as possible to the date at which the whole scheme would produce an income. This postulated the fastest possible rate of laying.

(b) The fact that half the pipeline was to be laid in areas subject to drastic subsidence.

(c) Possible pick-up of hardness from concrete.

(d) Costs.

It was decided to use steel pipes. Spheroidal-graphite iron pipes appeared very attractive, but at the time were not being manufactured in this country and were not obtainable from overseas in suitable sizes.

Joints

Welded joints were decided upon, partly because of the continuous strength thus given against subsidence and partly because it was felt that this was the best way to avoid encrustation at joints caused by movement. The economics of the scheme make it essential to minimise loss from friction.

A further choice then lay between socket-and-spigot joints with internal fillet welds, or butt welds. In the past, welded-steel water pipelines in this country have been laid with socket-and-spigot ends, having the essential jointing weld on the inside, often with a second run around the outside of the pipe to give additional security. The advantages of this kind of joint are that the joints are self-aligning and can rack two degrees or so per joint. However, these advantages are only material if butt-jointed pipes cannot be obtained with suitably fine end-tolerances, and if the pipeline is to be laid to curves; on the other hand the socket-and-spigot joint has the disadvantages that extra length is required on each pipe; there is the extra cost of forming the socket; and welding is carried out under confined conditions.

The advantage of the facility of joints to rack is in enabling pipes to be laid to curves. To do this would increase the total chainage, make easement arrangements contentious, and above all commit any later pipelines of the Yorkshire Derwent Aqueduct to the same paths and therefore to the same type of joints. It was therefore decided to set up the pipeline in straights and bends. In addition the manufacturers gave an assurance that butt-ended pipes could be produced to suitable tolerances, so it was decided to use butt-welding. This decision was coloured by the progress in recent years in the oil and gas industries in the technique of laying such pipes, using "spread" methods and "stove pipe" welding. The specification of the American Petroleum Institute (1958) for the field welding of line pipe has been adopted, with modifications adopted by various Gas Boards and recorded by Copp (1957). The control proposed is effected by radiographic and ultrasonic testing.

There is no satisfactory standard specification for steel line pipe of the sizes and nature required. Most of British Standard Specification No. 534 (1934, amended to 1958) has been adopted (though this does not specify 38in. pipe); this has the convenience that other relevant British Standards are automatically applied, but it only covers socket-and-sleeve pipe ends, so the provisions of American Petroleum Institute Standard 5L (1960) were chosen so far as they apply to plain ends of pipe prepared for butt welding. This latter specification is not thought to be adequate in defining the roundness of pipe ends, probably because most of its references are to pipes of 24in. diameter and smaller. Additional clauses have been drafted to cover this point. The weld tests for electric fusion-welded pipes given in the British Standard are brief, and provision is being made to substitute the tests specified in American Society of Testing Materials Specification A.134—54 (1954). Similarly the clauses on protection in B.S.534 are being replaced by the Dutch specification described below.

Protection

There has been copious argument, mainly in America, as to the relative merits of coal tar and asphaltic bitumens for the inside and outside protection of pipes; some of it appears to be commercially inspired. It was decided to use asphaltic bitumen for both internal and external protection; otherwise the pipes would have required double priming.

To specify the pipe protection the report of the Netherlands Central Institute for Research on Materials was used. Woven glass-fibre cloth of the type described by Reynolds and Wilson was chosen for the reinforcement of the pipe coatings. In view of the tendency of some soils to pluck at bitumen coatings, and of the reputed value of an alkaline layer on steel pipes, the coatings are specified to be finished with a lime wash.

Pipeline Route

For the first 20 miles from Elvington the route lies across the flat and silty Vale of York, broken only by two sandy ridges, one of which is Brayton Barff. The remainder of the route is more hilly, crossing the magnesian limestone and then on into the sandstones and clays of the coal measures, but it does not rise more than 250ft. O.D. until it is within a mile of the southern terminal at Hoober. Within that last mile the ground rises to over 400ft. O.D. Most of the fields in the flat lands are bounded by dykes, almost all too shallow for the large pipes of the aqueduct to be laid above water level, so the pipes have to be laid below these dykes, and this necessitates deep cover.

The whole line has been designed to a minimum fall of 1 in 800, and a maximum cover of 12ft., and to be laid to falls between air valves and washouts.

Fittings

The whole pipeline is a pumping main, so sluice valves are only required to control the movement of water after the pumps are stopped. Fewer valves are thus required than for a gravity main, and there is no need to specify a maximum distance between sluice valves; with the pumps stopped isolation is effected on most stretches by the air valves at the crests, with a few sluice valves to stop water in the pipeline on the higher ground emptying towards the lower.

It was decided to install sluice valves at the crests (by the air valves), rather than next to the washouts. This was partly because of the essential function of sluice valves in a pumping line as indicated above, and partly because of the greater ease of draining the chambers at crests,

and of simplicity of control when charging. A study of the capitalised cost of estimated head loss against capital cost of valves of various sizes suggested that the size of valve is not critical, and that to use 30in. valves throughout 42-38-36in. pipeline would be reasonable. By-pass sizes will be 12in.

Washout outlets are to be restricted to 9in. diameter because of the provisions of the Water Act, 1945 (Section 34 (2) (a)) and outlets are to be carried up above ground and flood levels. Because of the large amounts of water to be discharged, all washouts are designed to have concrete spillways into the water-courses. As the pipeline will always lie below the effluent water-course, provision is being made for washouts to be finally emptied by a mobile pump. All effluent channels from the washouts have been studied, and where necessary they will be improved.

All pipeline fittings are to have permanent accesses suitable for light vehicles.

Crossings

The crossings along the aqueduct fall into three classes: (a) under major navigable waterways (the Rivers Ouse and Aire); (b) under railways and large water-courses, and major roads; and (c) under other roads and minor water-courses.

The two main rivers presented the major difficulty. Both are contained within flood banks which may only be disturbed during summer months, and then only after precautions have been taken either to cover the breaches with stop walls or to arrange for them to be resealed at short notice.

On the Ouse a head-room of over 100ft. above water level must be preserved, and on both rivers the clearance over the flood banks must be sufficient to permit the movement of mobile plant—conditions which ruled out pipe bridges. At first it was hoped to cross the rivers in tunnel; but firm rock lay too deep, and the overlying strata would have made shaft sinking difficult.

The choice then lay between working in cofferdams, or fabricating a complete pipe-crossing on the shore and then launching and sinking it into under-water trenches dredged to the same profile as the fabricated pipes.

The first method is slow; other arguments against it are the restriction that it places upon the river flow (a sensitive point concerning rivers liable to flood), and the obstruction to navigation. Also the River Ouse at the point of crossing has a tidal range of about 13ft. Sinking prepared and shaped pipe-crossings into an under-water trench seemed reasonable and practical, and this method was selected.

It is proposed to carry out the second class of crossings by means of "continuously supported" headings. This description is intended to cover either the method whereby a horizontal auger is advanced within a steel liner, the two moving forward together; or that whereby a similar liner is jacked forward and the heading face excavated manually. In both cases the heading is continuously supported by the liner, which is always right up the excavation face. The pipeline will then be threaded into the lined heading, with annular spaces; and the whole grouted up solid. It is hoped that this method of crossing will be particularly valuable at the railways, as there will be no interference with traffic and little chance of subsidence.

The other crossings are to be made without special arrangements; only the major waterway crossings are to be duplicated. All the crossings are complicated by the need to allow for the passage of a signalling cable.

The river crossings can only be carried out when the winter floods have scoured the seasonal silt, and they must be completed before September, i.e. before the autumnal floods. For these reasons, and because of the specialist nature of the work, these crossings are to be constructed separately from the pipeline, and in advance of it.

Pipeline and Subsidence

Three parts of the aqueduct are vulnerable to subsidence in the Yorkshire coalfield, which for the present purpose extends from the River Aire southwards to Hoober. These are: (a) the pipeline, (b) Frickley pumping station, and (c) Hoober reservoir.

The recommended manner of protecting a water-pressure pipeline against mining subsidence is to provide a soft bed which will restrict ground grip on the pipeline, and then to use flexible joints capable of longitudinal movement without leakage. Local ground-movements are then spread over the maximum length of pipe because of the slip bedding, and both deflection and strain are accommodated by the joints.

The steel pipes of the Yorkshire Derwent Aqueduct will be at least 30ft. long and possible 40ft.; 0.8 per cent. of a 30ft. pipe is 2.88in.; of a 40ft. pipe it is 3.84in. Flexible joints in this pipeline would therefore have to be capable of accepting these movements without leakage and without damage to the internal protection. If a continuously welded steel pipe were used then the worst condition would be a longitudinal strain of ±0.8 per cent. This will cause steel to yield, but as the subsidence load on the pipe takes the form of a given strain the material will yield to that strain, and no more. In thin pipes the maximum stress is substantially equal to the principal stress, and the bursting strength is not affected. The only kind of pipeline that can be expected to withstand a local subsidence collapse is one of a tough and ductile material which has joints that will not draw apart under gross longitudinal tensile strain. In practice this means pipes of steel, copper, lead, or plastic, having joints which longitudinally are as strong as the pipes themselves.

It has therefore been decided to continue the pipeline over the subsidence area in steel pipes having butt-welded joints. This seems to be a more satisfactory arrangement than the use of flexible joints, at least in the case of a steel main large enough for the joint protection to be readily made up internally.

Costs

Since the Paper deals exclusively with design, the costs of the main works can only be estimated. Engineers are well aware of the limitations implied by that qualification. However, for the whole scheme the gross estimated cost is £6,625,000. The major items are: (a) pipelines, £3,398,000; (b) buildings, tanks and reservoirs, £1,749,000; and (c) machinery and plant, £618,000.

An item of £300,000 has been included for interest charged to capital. The size of this figure is clear warning of the desirability of postponing the start of the capital works until the last possible minute.

The preliminary expenses, all of which were incurred between April 1958 and March 1961, totalled £71,972. Of this figure £39,669 was spent on salaries, and £12,354 on site investigations.

The following contractors were employed for the preliminary investigations of the aqueduct route: The Cementation Co., Ltd., for the soil survey, and Meridian Air Maps, Ltd., for the aerial survey.

(Concluded from page 736)

a central walkway at first floor level to give access to the tanks on either side which are suspended through concrete or open steel platforms. The remainder of the building is two-storey and houses a day warehouse, sanitary accommodation, laboratories and offices.

The building is steel framed with stanchions at 20ft. centres. The manufacturing section has sheeted walls and a concrete roof, so that in the event of an explosion, the sheeting which is only clipped to the steelwork, would blow out.

The maintenance block is intended to service the whole of the plant and consists of a large workshop with stores at one end which are on two floors.

Services

The central boilerhouse contains two packaged water tube boilers each rated at 17,000lb./hr. at 212 deg. F. Each boiler is fitted with a rotary cup oil burner arranged for fully automatic controls and at present using 950 second fuel oil. Two 60-ton vertical oil storage tanks are installed in a compound adjacent to the boilerhouse.

Steam is distributed at high pressure to the major buildings for heating, hot water ventilation and air conditioning plants and also for process purposes. Local reducing valves are provided as necessary to suit the requirements of the various services.

A 200,000-gallon low level water storage tank is provided at the north end of the site. Water is drawn through this tank via booster pumps for cold water and process requirements and a separate 1,850 g.p.m. diesel fire pump serves a sprinkler installation. A cooling tower is provided for process requirements in the chemical block at the north end of the site and a separate similar tower is provided for the pharmaceutical block.

All manufacturing areas are either mechanically ventilated or air conditioned, using a number of separate plants, one for each department. A large bag type filter is installed for filtration of the exhaust system from special hoods over a number of processing machines. Other piping services include towns gas, bottled gas, nitrogen, compressed air and oxygen.

The electrical supply to the site is provided by the South-Eastern Electricity Board and consists of two 6,600-V feeders each with a capacity of 3.3-MW. This supply is controlled by a six-panel switchboard which in turn controls a high voltage ring main laid throughout the site with sub-stations adjacent to the principal buildings.

From the sub-stations low voltage supplies are taken into the various buildings each of which is equipped with a comprehensive electrical installation including fluorescent lighting, some 1,400 fittings providing 30 lumens/sq. ft. average illumination, supplies to all machines and plant, general purpose plugs, clocks, fire alarms, emergency lighting, road lighting, etc.

Over a mile of underground cable was used together with three miles of copper-sheaved cable and 75 miles of general wiring cable.

Consultants and Contractors

The architects for the development were Llewellyn Smith and Waters, 103 Old Brompton Road, London, S.W.1. Consultants included: Messrs. Gleeds, quantity surveyors, 106 Regent Street, London, W.1; Andrews, Kent and Stone, structural consultants, 60 Wardour Street, London, W.1; Donald Smith, Seymour and Rooley, mechanical and electrical consultants, 113 Park Street, London, W.1; Lemon and Blizard, drainage consultants, 59 Tufton Street, London, S.W.1.

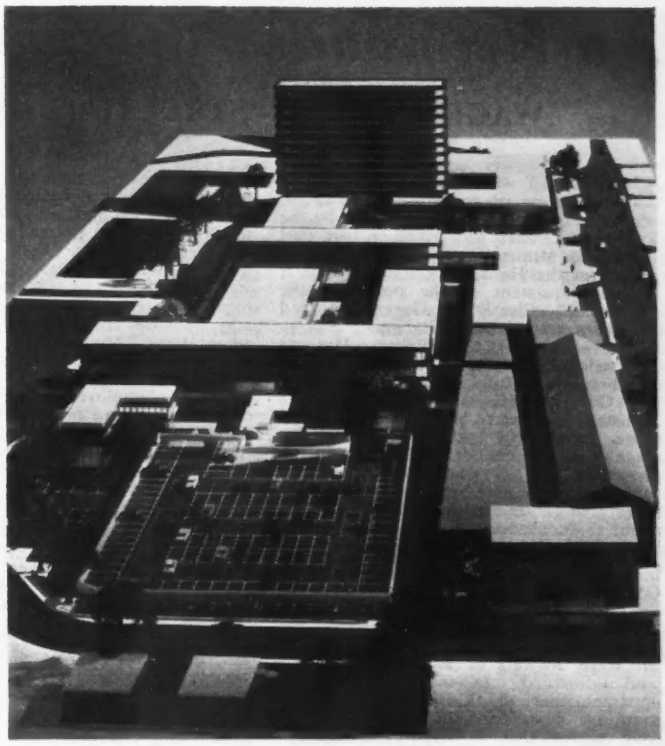
C.A.S. (Industrial Developments), Ltd., were the main contractors, supervising all operations, while R. M. Douglas (Contractors), Ltd., 395 George Street, Erdington, Birmingham, were responsible for the main building and civil engineering work.

CEMENT SUPPLY CONTRACT FOR INDUS BASIN WORK

From Lahore it is reported that the West Pakistan Water and Power Development Authority have signed a £4.5m. agreement with Ismail Cement Industries of Pakistan for the supply of cement to contractors engaged on the construction of replacement works under the Indus Basin projects.

SPRING TENDERS FOR £1½M. FELTHAM DEVELOPMENT

County Approve Hallmark Scheme



Model of the Feltham scheme, with split level car park in foreground

THE preparation of detailed drawings is about to be put in hand for a £1½ million scheme to develop part of High Street, Feltham, Middx. as a modern shopping precinct.

Tenders are scheduled to be invited in the late spring of next year, and it is hoped to start work in the summer. Completion is expected within two years of commencement.

The scheme is promoted by Hallmark Securities, Ltd., and has been prepared for them by R. Seifert and Partners, architects, 34 Red Lion Square, London, W.C.1. It provides for a total of 67 shop units and 84,000 sq. ft. of net office accommodation, the majority of which will be provided in one main block. In order that pedestrians and vehicles may be segregated, parking space for 512 cars is planned. This is provided partly at ground level and partly in a three-storey split-level car park. There is also a petrol filling station, a children's playground, and other public facilities.

A number of civil buildings are also to be erected, including a new branch library on the High Street frontage and accommodation for the Registrar of Births, Deaths and Marriages.

The shops are accommodated in two parallel two-storey blocks separated by a wide pedestrian way. At one end of the shopping blocks and mid-way along their length the pedestrian area is bridged by two floors of offices. Beneath the first of these cross-blocks will be a suspended restaurant.

At the other end of the shopping precinct will be the main office block—an 11-storey reinforced concrete structure with a net floor space of 60,000 sq. ft.—and beneath this block will be a large supermarket on two floors and with a frontage to the High Street. The high block will be clad in glass curtain walling.

125-year Lease

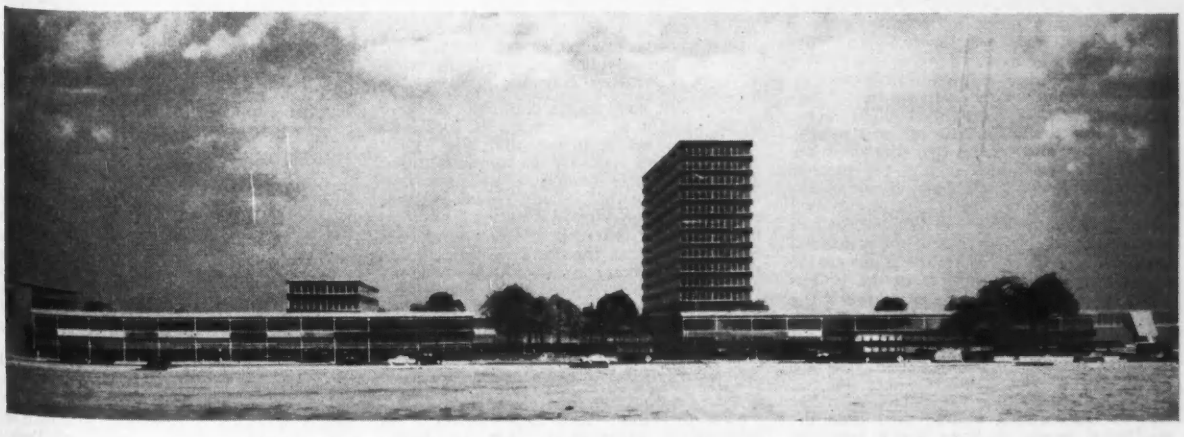
The proposasls for redeveloping the central shopping and business area of Feltham stem from the County Council's pre-war intention to carry out a scheme for the widening of the High Street. The possibility of major redevelopment, however, really came about through the revision of education needs in the area, as a result of which a site of some six acres, purchased in 1939 for a new school, was found to be surplus to requirements. The greater part of the land in question was vacant and it became evident that with the addition of certain other properties there was a reasonable prospect of making available an area of 13 acres sufficient to justify a completely new shopping centre.

A pilot scheme of development was evolved by the County Planning Officer and approved in principle by the Feltham Urban District Council. Subsequently the project was publicised and numerous applications were received from potential developers.

From these applications three schemes were selected for final consideration and the outcome of these deliberations was the recent approval by the County Council of negotiations being commenced with Hallmark Securities for an agreement for lease of the High Street site for a period of 125 years at an initial rent of £75,000 per annum.

Under this agreement the developer will be required to undertake all the work involved in carrying out the scheme. This will include demolition and land clearance, the construction of service and estate roads, the laying out and construction of the car parks and the erection of the new buildings. The roads, car parks, etc., are to be constructed in accordance with the local authority's standard specifications in order that they may be taken over later by the district council.

The widening of the High Street will be carried out when the existing frontage shops have been cleared.



High Street frontage, showing shops (left), 11-storey offices, and supermarket (right)

An Economist Comments . . .

WAGES AGAIN—STRUCTURE OF CONTRACTING FIRMS

EVIDENTLY the Government takes a grave view of the wage increase (to which I recently referred) conceded by the Electricity Council. So grave, in fact, that the Prime Minister took it upon himself to inform the House of Commons that it is "not consistent of the policy of the pay pause." Clearly the Government had to take a strong line if its policy was to be saved; and the Prime Minister emphasised that the Electricity Council had been made fully aware in advance of the Government's views and that the Minister of Power, when he heard the terms proposed, had expressed great disquiet about the damage likely to be caused. The pay pause has suffered a setback, but note the Government's anxiety to refute any suggestion that it is about to be abandoned.

There are, however, one or two unsatisfactory features about the Electricity Council's decision that call for comment. First, the fact has been underlined that the statutory relationship between the Government and the nationalised industries on wage matters is frustratingly vague and undefined. In this instance it is apparent that the Government had no statutory powers to interfere; it could only regret that a settlement, not in accordance with its views, had been reached. Yet can we not recall, not many years back, an instance where the Government, statutory powers or no, took a very firm line with a nationalised industry and virtually demanded that it should concede a substantial wage award? Although it is perhaps a bit unfair to rake over the ashes, the fact remains that more than once in the past a wage settlement in one or other of the nationalised industries, presumably with Government sanction, has triggered off a whole series of wage awards in other sectors of the national economy. If, it may be asked, the Government could be so influential in earlier years, why could it only stand on the touch-line in this instance?

There is another aspect, very topical at the moment. If a wage pause can be breached so easily in the short term, it surely casts doubts on the prospects of pushing long-term policies through to successful conclusions. It is now virtually certain that the proposed National Economic Development Council will go ahead, despite further last-minute misgivings by the T.U.C., and it is more than likely that long-term wages policy will figure predominantly in that body's deliberations; but will it comprise merely words on paper?

What of the immediate future? Will the electricity supply agreement set a pattern to be followed throughout industry? Or will the Prime Minister's statement plug the gap? We may never know the answers, since other important factors are now beginning to operate. In the first place, there is a definite suspicion that had the electricity supply wage increase been postponed until April, the Government might not have demurred, at least not so strongly. It has even been suggested that a wage increase in April higher than the present settlement would have been considered a better bargain. Yet since I last mentioned April as the possible official end of the pay pause, it has come to be regarded as a definite date. Whether it proves to be or not, with pressure from the unions being what it is, I shall be surprised if the Government, or industry in general, manages to hold out much longer.

As for the contracting industry, it seems unlikely that the employers are in any mood to countenance yet awhile a further increase in building wages, other than the additional penny an hour now a certainty under the sliding scale agreement. A claim for a further "substantial increase" in wages has only just been submitted by the building unions and is due to be heard by the National Joint Council for the Building Industry in January. Both employers and unions would, in their own interests, be well advised to think in terms of a long forward date again for any increase that may be awarded. By then if the earlier assumptions are correct, the official attitude to wage increases may have lost some of its sting. In the circumstances, unless the employers are in a position to dig their heels in much harder than they have been allowed to do in the past, a further building wage award in 1962 is still very much a probability, but it should be late rather than early.

This analysis of possibilities needs to be carried a stage further. Suppose the pay pause is ended, and that this ending is premature. What then? Clearly the Government will be faced with some very awkward problems. Confidence abroad in the stability of the £ sterling, already shaky, would be further weakened. At home, vast quantities of new purchasing power would be released at a time when the production index is receding. It is clear that a huge mopping up operation of excess spending power might then be required. The month of April, it will be noted, keeps cropping up; April is also Budget month. In this hypothetical situation, a very tough Budget indeed might well be regarded by the Government as the appropriate medicine. What form this toughness would take is anybody's guess. But it is evident that events now are dictating the shape of things next Spring.

Structure of Contracting Firms

AN article in *The Financial Times* of November 20 is well worth the attention of contractors. Its tone is in welcome contrast to that often adopted towards the construction industry. After dealing with the effects of the credit squeeze on the industry—the high bank rate and stiffer credit, the likelihood that before the winter it out, some of the smaller firms, at least, could be feeling the pinch, and so on—there is an interesting analysis of the change in the structure of the industry that has taken place since the last equeeze in 1958. This shows, in short, that there has been a shift in demand towards the bigger companies. With the aid of charts, it is shown that, although during the 1958 setback there was an all-round decline in building employment, this decline was far sharper among the smaller companies. Contrariwise, in the subsequent boom, although employment rose in companies of all kinds, only the largest regained their 1957 labour force. Another interesting feature is that the biggest rise of all was in the specialist sub-contracting trades; probably because of a bigger demand for their services to relieve shortages of craftsmen among bigger contractors.

Naturally, such shifts could occur again if the present pause were maintained long enough. Whether or not they are a good thing for the industry is another thing; but they clearly constitute an important factor and one that, to my knowledge, has received no previous attention—or if it has, the results have not been made known. Surely it is just the kind of information that the Government should have at its finger tips when it is framing its general economic policies. But I should be surprised if it has been given even a moments thought; much more likely, that it is yet another example of the unforeseen effects of official policy on our industry. More detailed analysis on these lines would probably throw up all sorts of interesting information; just as earlier unofficial ones have shown how acutely the intake of apprentices and the industry's investment in plant can be affected by official tap-turning operations.

The article contains other, pertinent, observations. For example, it suggests, as I have already done, that the load on the industry, though extensive in 1960, would have been restored to more normal levels without the help of the Chancellor. The point is also made that the industry's biggest fear at the moment, is that the Government will wait for definite statistical proof of spare capacity before they are ready to release demand, whereas the industry would prefer to shoulder its own load.

I entirely agree; but how different is this approach from that fashionable in recent months. At times this has gone so far as to make the construction industry the scapegoat for the present economic crisis. Such arguments ignore completely that, on a number of occasions since the war, the industry has underpinned the production index; in 1960 and 1961, in fact, it has been one of the few major growth sectors of the national economy. We now know that in the third quarter of 1961, contractors in Great Britain carried out work worth £620m. Allowing for price increase, this is 2 per cent. more than in the previous quarter and more than 8 per cent. more than in the third quarter of 1960. Here is yet further confirmation that the industry is perfectly capable of managing its own affairs. If this would be more widely appreciated and, in particular, if the Government and its advisers would adopt a more enlightened approach to the industry, its structure and capabilities, some valuable consequences would follow.

But Whitehall never learns!

PLANNING A NEW TOWN

The L.C.C. are about to publish a book explaining and examining in detail the major problems which have to be resolved in designing a new town of 100,000 people. Entitled "The Planning of a New Town," the book is available from the Information Bureau, L.C.C., at 50s. a copy (52s. 3d. with postage).

Hook (Hampshire) was conceived as a new kind of new town, urban and compact, fully motorised with urban motorways yet safe with a separate pedestrian network and a multi-level central area. The whole town, set in a park-like landscape with a new chain of lakes, playing fields and open space, was planned as a city in a garden rather than a garden city.

The book describes the idea of the town in architectural as well as planning terms. The social character of the new town, the pattern of its housing areas, and the make-up of all the elements in the plan are illustrated in 120 drawings, perspectives, plans, graphs and diagrams and described in 182 pages, including 68 pages of technical appendices which explain how the conclusions in the plan have been arrived at. Road proposals are submitted to traffic analysis and the cost of the whole enterprise worked out.

A new town will not now in fact be built at Hook. Nevertheless, since a fresh series of new towns is about to start in the Midlands, the north of England, and in Scotland, the Council consider the studies in connection with Hook to be such an important contribution to planning and architectural ideas that they have decided to publish them.

The work was carried out by a special research and design team of planners, architects, landscape architect, civil engineer, quantity surveyor, economist and administrators in the Architect's Department of the London County Council.

BLACKWALL TUNNEL DUPLICATION

Grouting of Sand and Gravel

LONDON County Council's Blackwall Tunnel duplication project was commenced in March 1960 and when completed in about three and a half years' time, will carry the south bound traffic under the River Thames, whilst the north bound traffic will be taken by the existing Blackwall Tunnel opened in 1897.

The new tunnel, which will be 2,844ft. long (of which 800ft. is through water-bearing sand and gravel), will have an internal diameter of 28ft. and will connect the Royal Boroughs of Greenwich on the south bank and Poplar on the north bank.

Because of the permeable strata underlying the River Thames it is necessary to use compressed air during the driving of the main tunnel. To minimise the loss of air through the upper portion of the tunnel and an ingress of water in the lower portion, a grouted annulus will be constructed in the sand and gravel beds before the tunnel is driven. This annulus will be formed by injecting clay and chemical grouts into the ground through special injection rods driven from two 7ft diameter pilot tunnels.

These pilot tunnels have already been constructed along the line of the new tunnel. One, which was driven from the south bank, is positioned near the crown of the new tunnel; the other (driven from the north bank) is near the invert level. Pre-formed holes have been incorporated in the cast iron lining of these tunnels and it is through these holes that injection rods are driven at the required angles. The drawing shows the arrangement of the injection points in the pilot tunnels and the annulus of treated ground to be formed, as does the artist's impression.

The alluvial deposits in the area consist of successive beds of organic silts and muds, Thames gravels and London clay. The River Thames has cut a channel through these and into the top of the underlying Woolwich Beds, and deposited sand, gravel and silt in their place. The coefficient of permeability of the sand and gravel is generally 10^{-1} cm/sec. It is in this 800ft. wide buried channel immediately under the Thames that The Cementation Company is now carrying out the grouting of the annulus which is 15ft. thick at the invert reducing to 11ft. thick at the crown.

Recent development has made grout design a much more rational process. Each grout is suitable for injection into soils having a limited range of permeabilities and if used outside that range it usually proves inadequate.

Testing Programme

Prior to the commencement of the grouting work, a permeability testing programme is carried out to establish the range of permeabilities along the entire length of the section to be treated. From the information so obtained a suitable grout is designed.

Clay grouts conditioned with chemicals are used for a major part of the annulus. However, as the depth of ground between the top of the tunnel and the river bed is only 15ft. in places, a pure chemical grout developed by The Cementation Company—known as TDM—is employed over the crown of the tunnel to form a reinforcing arch within the clay grout treatment.

Work is now in progress from the upper pilot tunnel, and on completion of the upper portion of the annulus the plant and equipment will be moved to the north side of the river in order to complete the remainder of the annulus from the lower pilot tunnel. This is necessary as there is no inter-connection between the two pilot tunnels.

Central Mixing Plant

For the preparation of the grout, a central mixing unit at the surface controlled by only two men can produce 2,000 gallons of clay slurry every 10 minutes. Before each batch passes through the supply lines to the injection points in the tunnel samples of the slurry are tested in the site laboratory and the exact quantities of conditioning chemicals needed to produce the required gelling characteristics are established.

The conditioning chemicals are conveyed by a separate line to special injection pumps which deliver the required quantities of each constituent of the grout to a mixing chamber fitted to the head of the injection rods. In this way the gelling cycle commences only as the grout enters the ground.

For the grouting operations the pilot tunnel is divided into three sections. In each section there are three teams of operatives for the three prime functions of driving the injection rods, pumping the grout and jacking out the rods in stages during the pumping operations.

Before the injection rods can be driven, a non-return valve is fitted to the lining to prevent an inrush of silt and water during the operations. On completion of an injection the rods are removed and a special slide valve operates to seal off the hole in the tunnel lining, after which the non-return valve can be removed and re-used.

Telescopic Legs

The correct driving angle is maintained by the use of telescopic legs spanning across the tunnel and wedged against the lining, the rods being driven into the ground by jack hammers. When the rods are in position a jacking frame is positioned across the tunnel, and a bridge supporting a pair of hydraulic jacks placed on either side of the rods to facilitate their withdrawal. A mono-rail has been installed to allow the rapid movement of this jacking frame between holes.

Injections are commenced from the outermost point of the annulus and predetermined quantities of grout are injected through the rods as these are withdrawn.

The working space in the pilot tunnel is so limited and the number and distribution of grouting teams along the tunnel such that normal communication methods would make it difficult for the engineers to obtain an overall picture and maintain the high degree of control required for this type of work. The Cementation Company has therefore introduced electronic methods of transferring the vital data to

(Concluded on next page)



Artist's impression of grout injection operations being carried out under the Thames to create a consolidated "ring" which will facilitate the driving of the 28ft. diameter tunnel

A LAWYER CONSIDERS . . .

A Banker's Reference — The New Rating Act

A FURTHER case of interest on the liability for negligent statements has now been reported, *Hedley Byrne Co., Ltd. v Heller and Partners, Ltd.* [(1961) 3 All E.R. 891].

The legal position on this matter may be summarised, taking into account *Clayton's* case discussed in an article in *The Contract Journal* for September 14, 1961, as follows: if the negligent statement is made by a party to a contract to the other party then there may be a liability if the contract can be construed as so providing; if there is no contractual relationship, then no liability attaches to a negligent statement, verbal or written, unless the statement is made to a person who is in such a special relationship with the maker of the statement that he may be expected to rely on it and who, in reliance on that statement, suffers physical damage; if the damage is solely financial liability is far more doubtful, perhaps even non-existent.

In this case advertising agents for manufacturers placed advance orders for advertising space with television companies and papers. Apparently in accordance with practice in this business the agents, who were regarded as "recognised" agents, took responsibility for payments to these TV companies and to the papers. The manufacturers themselves were in debt and merchant bankers H. Ltd. had assumed responsibility for their overdraft and were financing the manufacturers; the latter indeed depended for their survival on these merchant bankers.

The advertising agents through their own bank asked the merchant bankers if the manufacturing company could meet a debt of £9,000. A satisfactory oral reference was given and the advertising agents therefore refrained from cancelling the advance advertising orders. As it turned out the agents suffered loss from relying on this oral statement by the manufacturers' bankers. Could the latter be held responsible for this loss? Clearly knowledge about financial stability or otherwise is of vital importance in all business, not least in the constructional industries where a bad debt could mean the difference between profit or loss on any job. Equally clearly those with perhaps the greatest knowledge of the financial stability of any business concern are their bankers. This case therefore raised a problem of very wide interest, namely whether, in circumstances like those in this case, a person who has suffered financial loss by acting on a bankers reference can succeed, short of proving fraud or dishonesty by the banker; fraud was not alleged seriously in this case though if it had been proved the claim would have been successful.

The trial judge, as he was almost bound to do by the legal authorities, dismissed the claim. In the Court of Appeal the Court referred to the bankers' minute of the reference given in the telephone conversation which ended with the words, "We believe that the company, i.e., the manufacturers, would not undertake any commitments they are unable to fulfil"; they accepted that this reference was given negligently and that in reliance on the reference the advertising agents had suffered loss. The Court also stated that there was no contractual relation between the bankers and the advertising agents and therefore no contractual duty on the bankers to take care in giving such a reference. The only question was—was there a duty to take care in giving this reference imposed on the bank?

The Court carefully reviewed the cases in this matter. In a famous one *Le Lievre v Gould*, a builder had mortgaged his interests under a building contract to mortgagees who advanced money to the builder on the strength of certificates given by a surveyor that certain stages had been reached in the building. This surveyor had no connection at all with the mortgagees. Owing to the suveyor's carelessness the certificates he issued were inaccurate in their information on the progress of the buildings. It was held that no liability was incurred by the surveyor to those mortgagees and the ground of the decision was that the surveyor owed no duty of care towards these mortgagees so no question of him breaking that duty by careless certifying could arise. This and later cases however, by no means shut the door against the Courts' finding that in certain circumstances a duty to take care quite independent of contract had arisen.

The latest case in the Court of Appeal was *Candler v Crane Christmas* where C was thinking of investing £2,000 in a company; naturally he wanted to see the latest accounts. The company's managing director instructed the company's accountants to complete the current accounts telling a clerk employed by the accountants they were to be shown to a potential investor. The accounts were finished and shown to the investor who, relying on these accounts, parted with his money. The accounts were highly misleading owing to carelessness in drawing them up; the company was wound up and C. lost all his money. Naturally enough he tried to make good this loss by suing the accountants; they had a duty to him to take care and had broken it. By a two to one majority the Court of Appeal rejected his claim. The majority said that, fraud apart, and in the absence of some special relationship of trust or confidence between the parties, there was no duty to take care.

Since that case the decision in *Clayton's* case has extended the law to impose liability where the careless statement has resulted in *physical* damage to the person relying on it; this case concerned an architect who directly instructed a contractor's workman to do an unsafe operation and was held liable to the workman for the injury he suffered. The Court of Appeal in the *Hedley Byrne* case were unwilling to comment on the correctness of the decision in *Clayton's* case or to extend this liability to careless statements resulting in financial loss. It is to be hoped that if they so desire the House of Lords will, assuming an appeal to them in the *Hedley Byrne* case, clear up the law on this important subject.

The New Rating Act

THE Rating and Valuation Act, 1961, which became law in the summer contains some matters of interest to contractors.

Firstly the rating of plant and machinery, a subject referred to in an article in *The Contract Journal* for June 8, 1961. Certain plant and machinery which is or is in the nature of a building or structure is rateable under the provisions of the 1925 Rating and Valuation Act. By Section 5 of the 1961 Act the Minister of Housing and Local Government is given the power to make an order excluding from this class of rateable plant and machinery any item or items which it is the practice of the trade to move and which does not exceed the limits of weight, greatest dimension and volume to be prescribed by the order; such order may apply generally or may apply to specific items of plant and machinery and different provisions may be made for different cases. No doubt the Minister is preparing to act under the power given to him by this Section of the Act and it is to be hoped that the construction industries will try to see that any order made exempts the majority of building and engineering plant brought on to sites for use in carrying out the works. The reference in the Section to items of plant and machinery which it is the practice of the trade to move seems to indicate that Parliament had in mind the construction industries when agreeing this Section.

Secondly, and of more general importance, the Act brings to an end the long period, over 30 years, during which industrial premises have been derated, that is the rate demanded has been cut by three-quarters or, since 1958, by one half. With such a monetary reward in prospect it is not surprising that many owners of premises, including contractors with workshops and yards, have tried to bring these premises within the meaning of industrial premises, that is they must be a factory or workshop. A vast body of case law exists on this subject with many fine distinctions drawn and much learning displayed. All this now goes; those industrial premises formerly derated will be fully rated in the 1963 and subsequent valuation lists and contractors who have been enjoying derating for any of their premises will no doubt bear in mind this considerable increase in their overheads which will be taking place.

It is, however, difficult to say exactly how much the increase in rates will be to those who have enjoyed derating. For even if the ratepayer knows what the value of the premises concerned is going to be in the 1963 valuation lists he will not know what poundage his local rating authority is going to impose. Under this new Act another major provision is to deal with the position under the 1963 valuation lists when all premises, including private dwellings, will be valued at current i.e. 1963 values and not, as in the case of dwelling houses, at 1939 values; clearly unless something was done private householders (in probably an election year) would be faced with a very large increase in rates; so what was done was to abolish industrial derating and to give the Minister power, if the need arose, to derate temporarily domestic premises on which the changes due in 1963 have greatly increased the rate burden. All in all it seems that one must wait and see at least until the middle of 1962 what rates premises are going to pay after the new valuation lists come into force in April, 1963. It seems certain that local authorities will have a big increase in their rateable value so that they ought to be able to decrease the poundage considerably to bring in the same amount of money; but human nature in town halls being what one suspects it is one may be forgiven for feeling that we are all in for an increase in the money paid for rates in 1963.

(Concluded from previous page)

a control centre on the south side of the river.

Nine electric cables transfer the pressures, rate of injection and quantities of grout injected by each pump; this information is concentrated in three display control panels, one per section, and all round the clock the data is recorded for control of the work in hand. The shift engineer analyses the data and is able to plan operations accordingly.

New Techniques

Considerable progress has been made in recent years in grout injection into sands and gravels, such as are encountered at Blackwall, and several new devices and techniques are being employed on this work to ensure the adequacy of the grouted annulus which is so vital to the successful driving of the main tunnel.

The consulting engineers for the Blackwall Tunnel project are Mott, Hay and Anderson, and the main contractors are Balfour, Beatty and Co., Ltd.

SWANSEA DOCK GATE COSTS SAVED BY R.C. CAISSON DESIGN

THE development of modern dry-dock equipment was discussed in a Paper which Mr. John Read, senior engineer, G. Maunsell and Partners, presented at a meeting of the Institution of Civil Engineers, held in London recently.

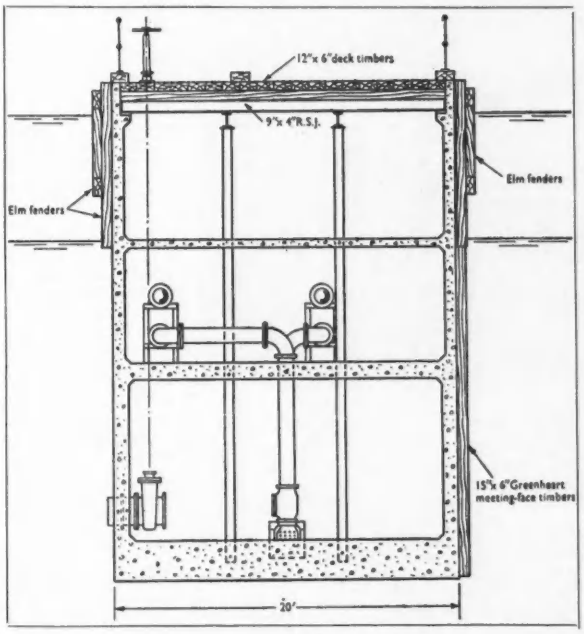
Besides reviewing progress in the design of items of equipment, Mr. Read described the construction of a reinforced concrete caisson gate at the newly completed Duke of Edinburgh Dry Dock, Swansea. He said:

Three possible types of dock gate were considered for the new dry dock which opens off a wet dock. These were: (a) a conventional box-type flap gate, (b) a single-skin flap gate, and (c) a caisson gate.

The single-skin gate whilst being more expensive than the caisson was considerably cheaper than a box gate and had all its advantages, but unfortunately could not be adopted, as there is insufficient depth of water at the dock entrance to accommodate the deep horizontal beam that is required at cope level with this type of gate.

The total cost of the caisson including all its equipment amounted to about £23,600, but the extra cost of a box-type gate over that of the caisson even allowing for the saving in constructional work at the entrance would have been of the order of £24,000 and it was considered by the dock owner that this additional expenditure outweighed the operating advantages of the box-type gate.

This saving was made possible by the adoption of a reinforced concrete design for the caisson instead of the more usual steel construction.



Cross-section of R.C. caisson gate

The caisson is 97ft. long on the meeting face side, 20ft. wide, and 28ft. 6in. high, each end being raked in plan to facilitate manoeuvring the gate into or out of the dock entrance.

The gate is essentially a box stiffened by two internal decks and two transverse diaphragms, the two diaphragms also serving to form the main ballast chamber in the centre of the gate. The weight of the decks and the upper timber deck is carried by steel columns filled with concrete.

A minimum external wall thickness of 8in. was adopted to ensure sufficient strength to resist the bumps likely to be received in service, but in addition substantial fendering is provided on all sides from the top deck to the upper of the internal decks. All the vertical fenders are packed off the concrete so that blows on the fendering are transmitted only to the decks of the caisson and not to the skin walls.

Cover to reinforcement is everywhere at least 2in. and in addition all the concrete surfaces were painted upon completion with one priming coat and one finishing coat of bitumastic asbestos-filled solution. Steelwork was shot-blasted and hot-dip galvanised before installation, any later damage to the galvanising being made good with zinc-rich paint before painting with two coats of Wailes Dove Bitumastic No. 50.

The concrete meeting face of the sill and sidewalls is formed of precast granolithic concrete units. The meeting face on the gate is of greenheart dressed accurately after bolting to the concrete, watertightness being ensured by a rubber seal of a type used by Head Wrightson, Ltd. The seal is in the form of a channel with thick flanges secured in a groove in the centre of the meeting-face timber in a steel flat coach-screwed to the timber. The flanges of the rubber channel protrude slightly from the face of the timber and are compressed by contact with the concrete meeting face to form a watertight seal.

Until relatively recently it has been usual to design caisson gates as a series of beams spanning horizontally between the entrance sidewalls, the skin spanning vertically between the beams. This method has one serious objection. Such a method leads to loads on the beams that are incompatible with the pressures acting on the meeting face if these are calculated assuming that the gate is a rigid plate supported on three sides. Therefore an approximate method was adopted.

Each of the internal decks was assumed to span horizontally between the entrance sidewalls but it was also assumed that the two diaphragms would rigidly connect together the decks and would rotate about the horizontal meeting face thus transferring load from the lower to the upper beam. This transfer was found to be considerable being of the same order as the direct load on the upper beam from the water pressure.

The shear at the ends of the upper beam, calculated by this method was within 5 per cent. of that anticipated from the consideration of the pressure on the meeting face.

Normal Practice

Detail design follows normal reinforced concrete practice using stresses of 18,000lb./sq. in. for the steel and 1,000lb./sq. in. for the concrete which had a specified minimum crushing strength at 28 days of 3,000lb./sq. in.

Shear stresses everywhere were limited to a maximum of 100lb./sq. in., it being considered that cracking due to shear is particularly undesirable in a watertight structure. The concrete floors were thickened towards the ends of the caisson to keep the shear stresses within this limit.

Generally, the greatest difficulty encountered in designing a concrete caisson is to provide adequate stability with minimum beam and yet to retain wall sections thick enough for strength. The wall thicknesses are generally 11in. below the lowest deck, and 8in. above it. In view of the critical nature of the disposition of the various weights it is necessary to specify tolerances as small as is practicable. Those adopted at Swansea were +0, −½in. for all floors and +0, −¼in. on the walls and these limits were generally attained by the contractor, who designed the shuttering to enable errors in each lift to be corrected in the next lift.

To allow for constructional inequalities the gate was trimmed afloat with approximately 35 tons of cast-iron blocks. The trim was adjusted so that the caisson, just before settling on its bearers, was heeling away from the meeting face, the gap between meeting face and gate being 4½in. wide at the top when the meeting faces at the bottom were in contact. This trim ensures that the caisson is properly in contact with the meeting face when the top of the gate is held in by the dock capstans immediate before the caisson grounds.

As constructed, the total weight of the caisson is 1,030 tons and the metacentric height with the caisson at its minimum draught is 6in.

Construction

Construction began as soon as the dock floor concreting had advanced sufficiently to provide room for the caisson. The contractor first cast a temporary bed upon the dock floor, carefully levelling its upper surface and isolating it from both dock floor and caisson with building paper. Upon this bed the caisson was then cast generally in lifts of approximately 2ft. 6in. with a construction joint at the mid-point of the longitudinal walls.

It was specified that no water bars might be used in the construction joints as it was felt that watertightness could best be ensured by the careful preparation of each joint immediately before concreting. The possibility of displacement of a water bar during concreting leading to a bad joint was considered to outweigh any advantages that might accrue from their inclusion. During construction the contractor formed in the outside edge of each joint a groove which was afterwards caulked with an asbestos-based filler such as Amianco to provide an additional safeguard against leakage. The grooves were formed with rectangular rubber strips nailed to the shuttering.

The shuttering was of ¾in.-thick plywood on 4in. × 1¼in. studding made up into panels approximately 10ft. long and 2ft. 6in. high. Between adjacent panels and at corners stout posts were erected and accurately positioned. The upper edge of each panel was made rigid so that this edge could be accurately located from the posts, the lower edge remaining flexible, being bolted to the previously cast concrete. A seal between plywood panels and post was effectively formed by a 7in.-wide metal strip upon the concrete face of the shutters and overlapping the edges of adjacent panels.

By maintaining the position of each post the top of each panel tended always to be in the correct line thus avoiding cumulative errors.

In operation the central tank is allowed to fill to dock water level when the caisson is resting upon its bearers to avoid any possibility of the gate lifting with an exceptionally high tide. This tank is then pumped out to raise the gate using the two 8in. diameter diesel-driven pumps. A third, smaller, pump is fitted to deal with any rain-water which may find its way

(Concluded on page 746)

"HEADS OF THE VALLEYS ROAD"

Minister Approves £3m. Contract

WORK will start shortly on the second stage of the "Heads of the Valleys Road," which will supersede the existing Neath-Abergavenny trunk road (A.465).

Mr. Ernest Marples, Minister of Transport, has approved the letting of a contract valued at £3,131,853 to Lehane, Mackenzie and Shand, Ltd., Nomanhurst, Matlock, in association with Christiani and Nielsen, Ltd., London, S.W.1, for the construction of a nine-mile length of road, including 18 bridges, between Hirwaun and Dowlais Top. The work is to be completed within three years.

Construction of the "Heads of the Valleys Road" is being undertaken in three stages. Work has been in progress since March 1960 on the first section, between Abergavenny and Brynmawr, which is due for completion in 1962. The section covered by the contract just announced forms the second stage. The third will consist of building the eight miles of road from Dowlais Top to Brynmawr to link the other two sections.

When the scheme is completed, the new road, 33ft. wide with high standards of visibility, will be 24½ miles long. It will form a continuation of the route from the West Midlands to South Wales via the Birmingham-Bristol (M.5) and the M.50.

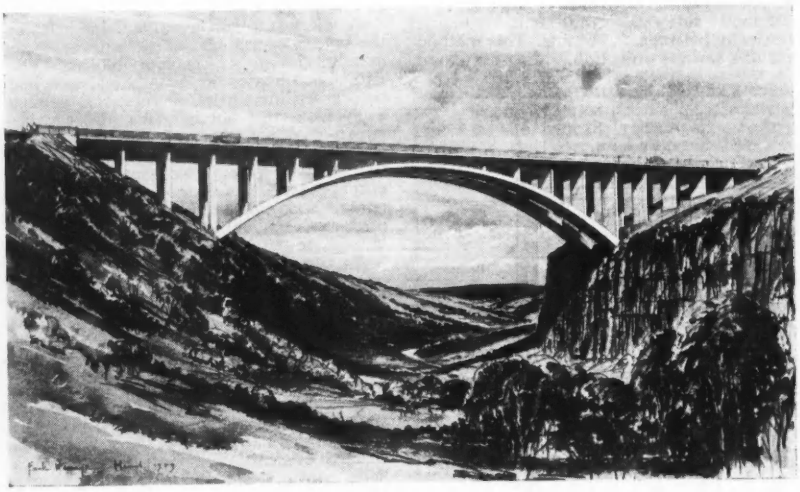
The section to be constructed under the new contract will leave the A.465 immediately west of Hirwaun, by-pass Hirwaun and Merthyr Tydfil, and rejoin the trunk road at Dowlais Top, between Merthyr and the Rhymney Valley. Connections, by means of roundabouts, to the existing road system will be provided at Hirwaun and Dowlais Top, where the new road will link with the Merthyr Slip Road. There will also be a connection at Cefn Coed with Trunk Road A.470.

Of the 18 bridges to be constructed, three will have reinforced concrete open-spandrel arches. These will span the Nant Hir Reservoir, the Nant Ffrwd between Finger Post and Cefn Coed, and the Taf Fechan on the east side of Cefn Coed.

A five-span reinforced concrete viaduct will be constructed over the Taf Fawr on the west side of Cefn Coed, and a six-span viaduct over a number of roads and railway lines at Pant, west of Dowlais Top.

The entire scheme has been devised by Rendel, Palmer and Tritton, consulting engineers to the Ministry of Transport for the project.

All the bridges have been designed in collaboration with the Ministry's consultant architects, T. Alwyn Lloyd and Gordon.



Artist's impression of the open spandrel arch which will carry the road over the Taf Fechan

FURTHER EDUCATION

Industry Must Do More, Says Sir David Eccles

THE contribution of industry to further education was the keynote of the speech made by Sir David Eccles, Minister of Education, when he opened the National College for Heating, Ventilating, Refrigeration and Fan Engineering in London recently. Sir David acknowledge the great contribution of over £60,000 in cash and kind made by the various industries concerned in the establishment of this national college. He paid particular tribute to the fine lecture theatre that had been provided by G. N. Haden and Sons, Ltd., as a memorial to their former chairman, Mr. Nelson Haden. But Sir David said that while national colleges were an excellent idea as a means of meeting the training needs of industries that were small and scattered, they had to be justified to the taxpayer. And Sir David did not see why the heating and ventilating industry whose output was about £75m. per year could not, for example, endow one or two professorships at the College.

It was pretty clear from Sir David's remarks that his Ministry were not likely to give a fruitful response to the plea made by the chairman of the Board of Governors of the National College that the Ministry should finish off their good work by building a suitable hostel for the students. Sir David stressed that there were definite limits as to the expenditure of public money on further education.

U.S. AWARD FOR NORWICH STREET IMPROVEMENT

An American organisation, National Downtown Week Inc., has chosen the Magdalen Street improvement scheme in Norwich, with nine cities in the United States and Canada, to receive awards for outstanding contributions towards making a shopping centre a better place in which to work, shop and live. The Norwich award is believed to be the only one made outside of North America.

Late Construction News

OXFORD SCIENCE PRECINCT.—The Senate of Oxford University have placed a contract with William Sindall, Ltd., 347 Cherry Hinton Road, Cambridge, for the construction of a science precinct at Keble Road, Oxford. To cost £414,500, the building will house a linear accelerator for nuclear structure experiments. Work is about to commence. Ove Arup and Partners, 13 Fitzroy Street, London, W.1, are the consulting engineers.

HOYLAKE SUPERMARKET. — Work is to start in January on the erection of a supermarket in Market Street, Hoylake, Ches., for the Birkenhead Co-operative Society. Construction will be carried out by the Society's building department and will cost about £250,000. The architects are Stephenson, Young and Partners, Bluecoat Chambers, School Lane, Liverpool, 1.

LIVERPOOL CONTRACTS.—At their meeting yesterday Liverpool City Council were recommended to accept the following tenders: 60 dwellings and 18 garages at Jericho Lane—Direct Labour, £165,040; third instalment of the F. L. Calder College of Domestic Science—Morrison and Sons, Ltd., Grange Terrace, Liverpool, 15, £129,376.

£½M. MATERNITY UNIT.—Tenders for the erection of a new maternity unit at Hope Hospital, Salford, costing over £½m., are to be invited from selected contractors next March. G.K.N. (Reinforcement), Ltd., are to begin piling work on the site early in the new year. Plans are by Cruickshank and Seward, 196 Deansgate, Manchester, 3.

FORTH APPROACH ROADS.—A tender of £183,845 from Whatlings, Ltd., Glasgow, for further extension of the northern approach roads to the Forth Road Bridge, has been recommended to the Scottish Home Department for acceptance by Fife Roads Committee.

PLYMOUTH FLATS.—Three multi-storey blocks containing 270 flats, laundries, stores and 90 garages, are to be built at Ker Street area, Plymouth, by Dudley Coles, Ltd., Plymouth. Their tender of £709,549 was accepted at the recent meeting of the City Council. The council also accepted the £155,914 tender of Selleck Nicholls Williams, Ltd., St. Austell, Cornwall, for 60 flats, six shops, two laundries and 18 garages at Union Street area.

CARDIFF HOUSING AWARDS. — Cardiff City Council have awarded the following contracts for development of the Fairwater Estate: Group 1, 22 houses and 22 garages, group 2, 28 houses and 28 garages—Rosser, Thomas and Co., Ltd., Dumballs Road, Cardiff, £51,605 and £66,340; group 3, 33 houses and four garages — J. and H. Bradford, Ltd., 354 The Arches, East Dock, Cardiff, £70,759; groups 4 and 5, 76 houses and 29 garages and 62 houses and 22 garages—George Wimpey and Co., Ltd., 382 Newport Road, Cardiff, £302,287.

£750,000 SHOPPING CENTRE.—A contract has been negotiated with Richard Costain, Ltd., London S.E.1, for the construction of a £750,000 shopping centre in Coalville, Leics. The architect is H. Owen Luder, 79 Regency Street, London, S.W.1.

£6M. BIRMINGHAM NEWSPAPER CENTRE

Tenders have been invited for the construction of a new centre for Birmingham Post and Mail, Ltd., at the junction of Steelhouse Lane and Weaman Street in Birmingham. The total cost is estimated at £6m., including printing plant, etc. Work is expected to commence in March.

The dominating feature will be a reinforced concrete framed tower block, 16 storeys high, supported on six slender columns. The main office block, which will be glassfronted, will be divided by a large pedestrian entrance court.

J. D. Madin, 83 Hagley Road, Edgbaston, Birmingham, 15, designed the scheme, with L. C. Wakeman and Partners, 11 Highfield Road, Edgbaston, Birmingham, 16, as the quantity surveyors. The structural engineer is Roy Bolsover, 103 Hagley Road, Edgbaston, Birmingham, 16.

RECONSTRUCTION OF DEPARTMENT STORE

Two Buildings Linked in One Block

HENRY'S department store in Market Street, Manchester, has been rebuilt at a cost of £750,000 to provide nearly four times the sales area of the old building.

Incorporated in the new seven-floor building is a two-floor store for H. Samuel, Ltd., and a section of the basement has been leased as a Victor Value supermarket. Parking for cars has been provided on the roof, the cars being taken up in a lift and berthed by a trolley system.

The original neighbouring stores of Henry's and Samuel were separated by a narrow road giving access to Marsden Square, and application to buy the right of way was made to the City Corporation. During these negotiations, Henry's purchased a total of nine properties, some of them derelict, to the rear of their existing store, to provide room for part of their planned extension. Demolition of these stores and also of Samuel's four-floor store began in March, 1960, when Samuel's ceased trading, temporarily, at this branch. Trade continued in Henry's throughout the contract.

When demolition of Samuel's was complete, a reinforced concrete structure went up on its site from basement to first-floor level and a temporary roof was put in place. This allowed Samuel's to move in again and resume trading, in September, 1960, at ground-floor and basement levels.

Before demolition of Samuel's old store began the contractors had to employ extensive shoring and underpinning of adjoining properties. Holes were punched through Samuel's walls and floors so that tubular shoring could be erected. Simultaneously, work proceeded at the rear of Henry's store, where a reinforced concrete structure was rising from basement level. This stage of the extension reached third-floor level where a temporary roof was put in place.

A temporary corrugated elevation was erected facing on to Marsden Square—pending release by Manchester Corporation of land in the square needed to complete the rebuilding scheme.

At this stage Henry's were able to occupy the basement, ground, first and second floors of the extension. Above the temporary roof, work continued on the upper storeys of the extension.

In January, 1961, there was a halt in the main building operations while the contractors waited for corporation permission to build on two sections of Marsden Square. During this period two passenger lifts were installed in the new extension and a staircase from basement to fifth floor was completed.

On receipt of the necessary planning approval work began immediately on the road separating the two stores. Having now acquired the right of way, the developers tore the road up and joined their two stores across it. Beneath the road, only 3ft. from the surface in places, an ancient sewer was found. The 4ft. sewer was completely exposed and arched over with reinforced concrete.

This common sector of the site now accommodates the main entrance to the stores and also the escalators which run from ground to fourth floor. Another escalator descends from ground to basement. In the basement there is a free interchange of shoppers between the two stores by means of access openings in the dividing walls.

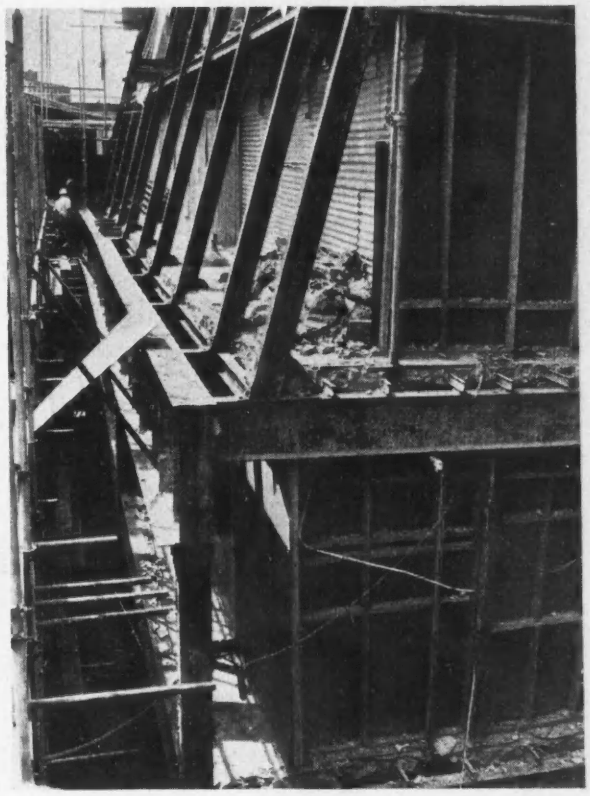
Joining the Blocks

Joining the two stores together in one block presented a major problem. It was planned to put bridging slabs of reinforced concrete across the 23ft. gap, supporting them by steel cantilevers, but the foundations at sub-basement level on Henry's side were not strong enough to bear the extra load of the bridging slabs. The problem was solved by building out, from the new Samuel structure, reinforced concrete cantilevers—which stretched for two-thirds of the distance—and closing the gap with bridging slabs from Henry's side.

This operation was complicated by the fact that the escalator openings had to be formed in the bridging slabs. Since it was calculated that the main cantilevers would, under full load, deflect by 1in., it was necessary to build three independent columns up from the basement to the fifth floor to ensure that the escalator tower would be self-supporting.

Due to the calculated deflection, it was decided to leave all the props supporting the ends of the r.c. cantilevers in place until the roof cantilever had cured. This involved the propping up of about 450 tons of concrete and steel.

To allow work to proceed on the basement and ground floor, a special scaffolding gantry was erected at first-floor level to take the entire load of these props. It was designed so that its tubular supports passed through holes in the ground floor slab to the basement.



Scene during the removal of the original mansard slope at fifth-floor level

While work was continuing on the upper storeys over Samuel's store, to match up with Henry's facade, work also began on phase two at the rear of Henry's, on the extra land bought from the corporation. The reinforced concrete structure in this section includes a 40cwt. lift capable of accommodating cars up to 16ft. in length and taking them about 72ft. up to the roof, where there is space for 22 cars. The lift also serves all floors and so can be used for goods traffic.

The open roof car park, the first of its kind in Manchester, incorporates a central 18in. deep gulley which accommodates a hand-operated trolley. This enables cars to be pushed sideways to an empty berth. The roof comprises 6in. reinforced concrete slab, with an extra 2in. wood-wool slab for sound proofing.

On Samuel's section of the roof, a special concrete building houses the equipment for the plenum air conditioning plant which serves the entire building.

Modernisation

In addition to the new building work on this site, a considerable amount of modernisation was carried out on Henry's existing steel-framed store. At times the work was carried on behind screens on three sides of shoppers.

The original Portland stone facade on the Market Street elevation was replaced by bronze wallspan with mushroom-coloured armour-plated glass panels each 12ft. by 3ft., continuous across the frontage of the entire building. This involved cutting large areas of stone facing back to the steelwork to obtain fixings for the new supporting steelwork.

At first-floor level the facade was completely opened up for the installation of four 15ft. by 12ft. display windows, each weighing half a ton. During this operation, the upper facade—about 80 tons of stone and steel—was left for a time supported by four existing steel stanchions.

Further underpinning at second-floor level comprised 9in. by 3in. steel channels fixed back and front to the existing steelwork with a number of 8in. by 4in. RSJ "needles." Electric welding was used throughout.

The original mansard slope at fifth-floor level was also removed to conform with modern design. Continuous windows with a steel canopy above have replaced it. The line of the windows is set back from the wall span, forming a balcony along which runs the support for the cradle to be used for cleaning the facade.

A 10ft.-wide steel canopy runs across the full width of the block at first-floor level to protect window shoppers. Throughout work on the Market Street elevation, Henry's retained full use of the display windows.

Three new oil-fired boilers were installed in the sub-basement. Due to their bulk they could not be taken down the stairs and a 10ft. by 10ft. opening had to be specially formed in the ground and basement floors to allow them to be lowered through by crane.

Terrazzo tiles have been laid throughout the basement and ground floor.

False ceilings with multi-tube flush lighting have been installed throughout ground, first, second and third floors. The area of each floor is about 18,000 sq. ft.

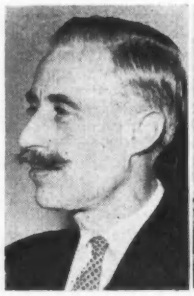
Architects and Contractors

The architects for the scheme were Marsden, Massey and Arschavir, 14 St. Peter's Square, Manchester, 2.

Bovis, Ltd., were the main contractors, and the car park was installed by William Wadsworth and Sons, Ltd., licensee manufacturers of the Pearce Autopark system

Men and Movements

THE International Harvester Co., of Great Britain, Ltd., have announced the appointment of **Mr. J. R. Curtis** as credit manager. He succeeds **Mr. S. J. Wright,** who has retired due to ill health. Mr. Curtis, formerly office manager at their London office since 1954, is succeeded by



J. R. CURTIS



S. J. WRIGHT

Mr. W. R. Elliott. The company have also announced the promotion of **Mr. J. Higginson** to assistant to the manager of engineering at their Doncaster works. Mr. Higginson joined the British IH company as chief product engineer (implements) in 1954 from the Hamilton works of International Harvester Co., of Canada, Ltd.

To extend their service in the South Wales and west of England areas, the Central Manufacturing and Trading Co. (Dudley), Ltd., have recently opened a new sales depot at Kendon Road, Crumlin, Mon., **Mr. Kenneth J. Houghton,** who was formerly the firm's area sales representative in Warwickshire and Leicestershire, has been appointed divisional manager of the branch.

The Minister of Housing and Local Government has appointed **Mr. B. F. R. Paterson,** J.P., and **Mr. J. M. A. Smith** as members of the Commission for the New Towns. Mr. Smith is director of finance and assistant managing director of Ford Motor Co., Ltd.

Mr. J. Singleton-Green, M.Sc., M.I.C.E., M.I.Struct.E., F.Inst.H.E., has joined S. P. Christie and Partners, the London firm of consulting engineers, as a consultant. In addition to his work as a consultant on concrete he is now in a position to undertake design work of all kinds.

Kebric Plant, Ltd., have announced the appointment of **Mr. John Harrison** as plant hire manager. Mr. Harrison was previously employed in a similar capacity by Greenham (Plant Hire), Ltd.

Polytex N.V., who are the distributors in the Netherlands for Road Machines (Drayton), Ltd., recently arranged a short visit to this country of a group of people interested in the manufacture of bricks. The photograph shows (left to right) **Mr. Fritz Spoelman,** representative of Polytex N.V.; **Mr. M. C. Twomey,** Road Machines' representative; **Mr. J. Bekker,** a consultant on mechanisation to a group of brickworks in the Netherlands; **Mr. J. A. Smith,** export manager, Road Machines; and **Mr. A. Van der Laak** with **Mr. J. Van der Laak,** contractors specalising in brick kiln construction. The party visited Knowle Brickworks, Warwickshire.



Two important engineering appointments have been announced by the Perkins Group. **Mr. N. M. F. Vulliamy,** M.A.(Cantab)., A.M.I.Mech.E., becomes chief engineer (diesel), and is succeeded as manager of the group's experimental department by **Mr. A. M. Porkess,** A.R.C.S.T., A.M.I.Mech.E. Mr. Vulliamy joined F. Perkins, Ltd., in 1937, and became chief experimental engineer in 1952. He has been manager of the experimental department for the past five years. Mr. Porkess joins Perkins after spending 18 months as chief engineer with the National Gas and Oil Engine Co., Ltd.

Mr. J. F. D. Wood, sales director of Sanders and Forster, Ltd., is making an extensive sales promotion tour in the Far East. He will visit Bombay and Colombo, Singapore and Kuala Lumpur and then proceed to Penang, Singapore, Kuching and Bruni, returning by way of Singapore and Bangkok to London. During his tour. Mr. Wood, whilst following up a number of active sales leads for the sale of the company's standard steel buildings, will also appoint agents in the unrepresented territories, both to promote sales of the company's standard steel buildings and also for structural steelwork.

Mr. E. T. Judge, chairman and managing director of Dorman Long and Co., Ltd., has been appointed chairman of Darlington and Simpson Rolling Mills, Ltd.

Every country in Europe has been visited during the last nine months by **Mr. Allan G. Smith,** who was appointed as export sales manager by J. C. Bamford (Excavators), Ltd., earlier this year, to cover the companys overseas marketing operations. He has also toured the Caribbean area, some South American countries, and West Africa.



A. G. SMITH

Dorman, Long and Co., Ltd., have announced that **Mr. James Jack,** previously financial director, has been appointed managing director—group finance and administration. **Mr. Thomas Young** has been appointed secretary of the company.

Mr. H. C. Johnson, general publicity manager of John I. Thornycroft and Co., Ltd., will retire on December 31, after 47 years' with the company. He first joined the firm early in 1914, and after experience in the boat and marine engine sales departments, joined the publicity department, of which he was subsequently appointed manager.

F.B.I. SCHOLARSHIP SCHEME

500th Scholarship Award

AT the Federation of British Industries' Headquarters in London last week Sir Keith Joseph, Minister of State, Board of Trade, presented Senor Castillo Valdez of Guatemala with a certificate as the five-hundredth scholar to come to Britain under the F.B.I. Scholarship Scheme.



SENOR VALDEZ

Formerly a student at the University of San Carlos, Guatemala, Senor Valdez graduated from the Brigham-Young University, Provo, Utah, U.S.A. He then joined the Empresa Electrica de Guatemala as an assistant engineer. During his 24-month stay in Britain he will work with James Williamson and Sons of Glasgow on the Loch Awe hydro-electric scheme.

Before presenting the certificate, Sir Keith Joseph stated that the F.B.I. Scholarship Scheme was another example of enlightened self interest on the part of British industry. He also paid tribute to the linguistic ability, enterprise and energy of visiting students.

The F.B.I. Scholarship Scheme, which provides each scholar with an opportunity to study the subject of most interest to him, brings engineers from 39 lesser developed countries to Britain for post-graduate training. One third of the intake comes from Latin America.

LOCAL GOVERNMENT IN BRITAIN

A revised edition of the pamphlet, Local Goverment in Britain,* which was first published in 1955, has been produced by the Central Office of Information.

After tracing the evolution of local government in England and Wales, the 40-page pamphlet goes on to describe the constitution and internal organisation of local authorities, the electoral system, local authority services, finance, and central-local government relations. There are separate sections on local government in Scotland and Northern Ireland. An appendix lists the functions of all types of local authority, and there is a reading list.

**Local Government In Britain, published by H.M.S.O. Price 2s. 6d.*

(Concluded from page 743)

into the dry compartments and to empty, when necessary, the two trimming tanks in the extreme ends of the gate. These tanks provide additional ballast for normal operation but when empty allow the gate to be floated over the sill of the new dry dock.

Handling of the gate when afloat is by two capstans one on either side of the dock. The gate is first moved away from the meeting face but remains parallel to it until it can be drawns sideways across the entrance of the adjacent dock. Four roller fairleads provide guides for the hauling wire. Closure of the gate is a reversal of this procedure.

Contractors

The various items of equipment were supplied by the following firms. Hauling winches by Stothert and Pitt, Bath; hauling carriages by Rees and Kirby, Swansea; hauling carriage hooks by R. H. Green and Silley Weir, London; bilge-block bases and mechanisms by Superwelds (Lewisham), Ltd., Dartford; submersible lighting fittings by Associated Electrical Industries Lamp and Lighting Co., Ltd.; rubber sealing strip by Clyde Rubber Works Co., Ltd., Renfrew. The structure of the caisson gate was built by the main contractor, Marples, Ridgway and Partners, London.

WAGE CLAIMS IN BUILDING INDUSTRY

Submissions to National Joint Council

THE wage claims submitted to the National Joint Council by the National Federation of Building Trades Operatives this year fall into three groups; wages and hours; guaranteed time and notice; fringe benefits and plus rates.

Wages and Hours

The operatives have claimed a substantial increase in wage rates including shift rates for watchmen. The claim is in general terms and there is no indication as to whether the operatives desire a larger increase for craftsmen than for labourers in order to widen craft differential. Over the years this differential has narrowed considerably.

The claim must be measured against the substantial wage settlement this year for which the operatives received in addition to the sliding scale increase of ½d. per hour in February a further 6d. in October. This settlement produced the largest wage increase ever granted in any one year in the building industry. In accordance with the sliding scale clause which links building wage rates to the interim index of retail prices there will automatically be a further advance of ½d. or more probably a 1d. per hour next February.

This year's wage settlement included a reduction in the normal working hours from 44 to 42 and part of the October wage increase was to compensate for this reduction in hours. In practice, however, there seems to have been little reduction in actual working hours and the result has been an increase in overtime payments. Last April the average hours and earnings for men in the construction industry were 50.1 hours and 287s. 5d. per week.

The reduction in normal working hours to 42 stemmed from a claim made some-time ago for a 40-hour week. Presumably this claim still lies on the table, but no specific reference has been made to it by the operatives on this occasion. There is, however, a claim that the normal working hours should be worked in five days throughout the year. At the moment the normal working week is five-and-a-half days with an option to work five days, and similar arrangements prevail throughout most of the construction trades. In many other industries, however, including the engineering industry, a five day week has been in operation for a number of years.

Where contractors work an actual five day week the claim will not result in any increase in costs, but where work has to be done on Saturdays it would clearly involve an increase in overtime payments. There is little doubt that ultimately the five day week will come in the building industry. The main question is when?

A claim that is likely to cause considerable discussion is the one relating to meal intervals. As part of this year's settlement the employers secured an amendment to the rule on meal intervales which enables the unpaid break (not to exceed one hour) to be split between two or more refreshment breaks. The claim from the operatives seeks to restore the old status quo so that the break would be confined to the midday meal. Thus the opportunity to agree an unpaid morning and/or afternoon break on site would presumably be lost.

Guaranteed Time and Notice

There are two important claims relating to guaranteed time and notice of termination of employment The operatives want a guarantee at the full current hourly rate for all the normal working hours during which an operative is available for work. At the moment the guarantee is limited to 36 hours. The operatives also want after the first six working days at least one week's notice of termination of employment to expire at normal finishing time on the Friday. Such notice would have to be given by either side although in practice it might apply mainly to the employer. At the moment after the first six days employment only two hours notice of termination of employment need be given but the notice must expire on the Friday.

Fringe Benefits and Plus Rates

There are three claims in relation to travelling rules, two of which affect the local provisions in London and Manchester. In London the operatives want abolition of the special rules affecting operatives regularly employed at factories or shops coming within the ambit of the supplementary rules for woodworking factories and shops and in Manchester they seek a reduction from two miles to one mile in the radius of the number one "free area." But the main claim is that in all cases payment for travelling time should be made in respect of all journeys travelling both to and from jobs instead of one way only at the moment.

The operatives claim an increase from 2d. to 6d. per hour for work in swings and cradles and the raising of the rate for qualified benders and fixers and for tubular scaffolders to the craft rate. They also claim a tool and overall allowance of 3d. per day for painters and painter apprentices, and the removal of the "stock brush" from the list of tools required to be provided by plasterers.

Finally, there is a claim for female operatives. Namely the restoration of the fixed differential of 4d. below the standard rate for women as the means of determining the wage rate for women engaged on work other than craft processes.

Evidence on these claims will be heard from both sides at a Statutory Meeting of the National Joint Council to be held on January 10, 1962.

EMPLOYMENT OF APPRENTICES BY CONTRACTORS

Preliminary Report on the 1961 Inquiry

PRELIMINARY estimates based on the census undertaken in September of the number of apprentices employed in the construction industries in Great Britain have been prepared by the Ministry of Works. The figures compared with last year are given in Table 1.

According to these figures, the number of boys with Written Indentures has fallen. The continued decrease in the number of apprentices employed would appear to be the result of a number of factors. The intake of new boys is still lower than the intake five years ago. In addition more boys are completing their apprenticeship in less than the maximum period of five years, and of course wastage may be higher.

On the other hand, the figures (see Table 2) provided by the National Joint Council showing the number of boys registering as apprentices in Great Britain, although not strictly comparable with the above figures, indicate that the position has been improving recently.

The census figures show a drop of 16,000 in the number of craftsmen, including apprentices, employed in Great Britain, despite an increase in the total labour force of 20,000.

Table 1

Thousands

	With Verbal Agreements	With Written Indentures	On Probation	Total
September, 1960	45.8	39.2	11.0	96.0
September, 1961	45.9	37.1	11.7	94.7

Table 2

Thousands

1956	1957	1958	1959	1960	1961
11.0	9.3	8.4	8.0	10.1	6.9 (9 months)

BRITISH-BUILT SUDAN MILL OPENED

The largest textile mill in the Middle East, costing £6m., was opened recently at Khartoum North, Sudan. It was built for the Sudan American Textile industry by a British consortium led by English Electric Co., Ltd., Marples, Ridgway and Partners, Ltd., and Platt Bros., Ltd.

The mill covers cotton storage, spinning, weaving, bleaching, dyeing and finishing. There is a three-storey office block, a four-storey hostel building, power station, cooling and water towers, roads, drainage and services. Eventual output will be 75,000,000yd. of cloth a year.

Marples, Ridgway and Partners constructed the mill buildings within 21 months of work beginning, as scheduled. The main building is 1,042ft. long, and cotton is stored in a special section with four fireproof compartments. The bale opening, spinning, sizing and weaving rooms are on one production floor of 380,000 sq. ft., which is carried on 2,265 columns, 11ft. above ground. Special attention was paid to heat insulation to maintain a low workroom temperature.

In a second building of similar construction containing bleaching, dyeing, finishing and cloth inspection rooms, acid-resistant tiles protect the floor against the chemicals employed, with a special system of drainage to carry the corrosive effluents from the machines. Attached to the main building is a three-storey reinforced concrete office block with full amenities for the workpeople, including canteens, cloakrooms and washing facilities.

MITCHELLS AWARDED £275,000 MIDLANDS CONTRACT

Mitchell Construction Co., Ltd., Peterborough, have been awarded a further contract, valued in the region of £275,000, by the Midlands Project Group of the Central Electricity Generating Board.

The contract is for the construction of a workshop and office block for Drakelow 'C' Power Station at Burton on Trent and includes workshops, stores, laboratories, welfare accommodation, canteen and kitchen, auxiliary boiler house and fuel tanks, spur roads, rail crossings, screens and drainage.

Work on the new contract will commence this month and is due for completion in December 1963. The consulting engineers are L. G. Mouchel and Partners.

PROBLEM OF OBSOLESCENT HOUSES

Addressing members of the Building Societies Institute at Blackpool recently, Sir Bruce Wycherley, managing director of the Abbey National Building Society, said that the larger problem of Britain's housing requirements over the next 20 years was that of obsolescence.

Sir Bruce also revealed that the British Transport Commission was investigating the possibility of some railway land in London being released for housing development.

MEETING FUTURE DEMANDS

L.M.B.A. President's Comments

SPEAKING last week at a luncheon given by the Northern Area, Mr. R. F. Mansell, president of the London Master Builders Association, said:

"The building industry has good reason to be proud of what it has achieved in post-war years in the realm of education and training, as well as in the learning and applying of new management techniques.



R. F. MANSELL

"Today, unless all the prophets within and outside the industry are mistaken, we can anticipate a full and increasing demand for our services for several years to come. In addition the Minister of Works has initiated a review of the potentialities and problems of the industry, and there is promise that future regulators on our national economy will take into account our need to have a sufficient work load and confidence in the future to achieve maximum efficiency.

"This, in my opinion, provides the opportunity for which we have been seeking, to replace our somewhat piecemeal efforts, based upon a fluctuating prosperity, with carefully considered programmes based upon confidence in a prosperous future. It calls for an act of faith from all our members, large and small, not only in the prosperity of our nation, but also in the good faith of our legislators: to proceed with long-term policies of re-equipment to fit themselves for the demands of the future.

"All our experience, in apprentice and foremanship training, in the training of technicians, the training of craftsmen in new techniques, in work study and site and office management, and research, indicates that further progress in this field can now only come by a planned approach to it."

FROM TORQUE CONVERTERS TO COMMON MARKET

QUESTIONS ranging from the benefits or otherwise of torque converters to the effect of Britain's proposed entry into the Common Market on the plant manufacturer and user were tackled by a "Brains Trust" panel last week. The occasion was a meeting of the Mid-Southern branch of the Contractors' Mechanical Plant Engineers at The Grosvenor House, Caversham, Reading.

The panel comprised P. Barrett, managing director Saville (Tractors), Ltd., J. J. G. Michie, O.B.E., director, John Laing Construction, Ltd., W. R. Selwood, managing director, William R. Selwood, Ltd., and P. A. Stone B.Sc.E.Com, Building Research Station, D.S.I.R. The chair was taken by Lawrence McCarthy, editor of *The Contract Journal*.

On the question of Britain's proposed entry into the Common Market the panel appeared to agree that there would be little advantage for the plant manufacturer but the user could look for a wider selection of equipment and a reduction in prices.

The question which caused most controversy dealt with depreciation. "What do the panel consider as a practical average depreciation figure for (a) crawler tractors and (b) excavators?" It was inevitable that the economist member of the team should be called upon to answer this one first but his reply of (a) 8-9 per cent. and (b) 9-10 per cent. was not all that well received by other members of the team who seemed to think the answer was 20 per cent or "as much as you can get away with".

When plant suppliers and users meet the question of the training of operators usually arises in some form or other and this meeting was no exception. There were three question dealing with the subject and although the panel agreed that it was essential that operators should be trained and be able to maintain their machines no fresh thoughts on how best to achieve this appeared to emanate from the discussion as far as the writer could judge.

Altogether the panel tackled some 25 questions and appreciation of their efforts was ably voiced by Mr. F. M. Barrett, the chairman of the branch.



A feature of the forecourt filling station at the Zidpark multi-storey automatic car park, Southwark Bridge, London, is the dished fan-shaped canopy constructed of reinforced concrete, supported at one corner only on a prestressed inclined column. The Zidpark and service station, built by Myton, Ltd., are part of a £1m. project which includes a seven-storey office block (seen in background right). Architects: C. Edmund Wilford and Son, F.A.R.I.B.A.; consulting engineers, Phillips Structures, Ltd.

LONDON GOVERNMENT

Government Proposals for Reorganisation

THE Government have accepted almost all the main recommendations for reorganisation of local government in Greater London made by the Royal Commission whose report was published in October last year. A White Paper* proposes far-reaching changes and says that the aim will be to introduce legislation in time for new authorities to be elected in the autumn of 1964 and to take over their responsibilities on April 1, 1965.

The proposals include:

(1) The merging of the present boroughs and urban districts into new London boroughs. These would be the main units of local government, and would have new responsibilities for important personal services.

(2) The establishment of a directly-elected Greater London Council to carry out functions which need to be planned and administered over the whole of the metropolis.

(3) The consequent abolition of the administrative counties of London and Middlesex and the loss to the counties of Essex, Herts, Kent and Surrey of the metropolitan parts of their areas. Croydon, East Ham and West Ham would cease to be county boroughs.

Qualifications by Government

The proposals show two main qualifications of the Royal Commission's recommendations. First, the Government think it would be desirable to aim at larger and therefore fewer boroughs than the 51 suggested by the Commission. They think it would be desirable to aim at a minimum population of around 200,000 wherever possible. Second, responsibility for education would fall to the boroughs, with a special authority for a central area, instead of being shared between the Greater London Council and the boroughs, as the Commission recommended.

The White Paper says that London has clearly outgrown the system of local government devised to meet the vastly different physical and social conditions of the last century. It faces immense problems of congestion, of traffic, and land shortages and of major redevelopment.

Fuller Opportunities

The White Paper goes on to say that the Government are "convinced that London needs a form of local government organisation to match its present physical shape and state. They are convinced, too, that this organisation must be one which recognises the unity and cohesion of the area, and which would combine ability to handle those issues that demand a comprehensive view of the whole area with the capacity to grapple effectively with the many and complex local problems. The Government believe that, provided these conditions are met, the new structure will provide fuller opportunities for really worthwhile local government service."

**London Government — Government Proposals for Reorganisation. (Cmnd. 1562.) H.M. Stationery Office. Price 1s.*

OCTOBER HOUSING FIGURES

The number of permanent houses completed in Great Britain during October, 1961, was 27,521 (compared with 26,577 in October, 1960) for which local authorities were responsible for 10,030 and private builders for 17,086.

In the first ten months of 1961, 244,348 houses were completed (compared with 245,068 in the same period of 1960).

Guidance on the design of training schools for nurses is given in No. 14 of the Ministry of Health Building Notes, which is published by H.M.S.O., price 1s. 6d. net.

134FT. SPAN STEEL-FRAMED HANGAR AT SOUTHEND AIRPORT

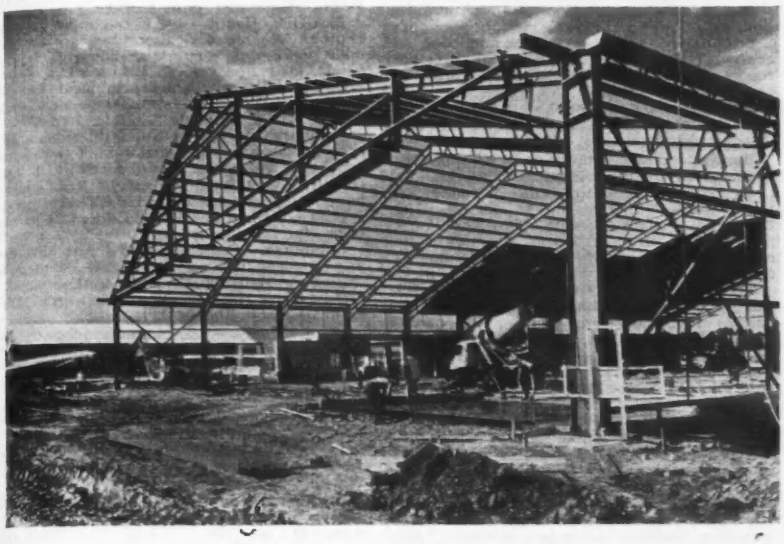
A STEEL-FRAMED hangar building with a span of 134ft. has been erected at Southend Airport for Channel Airways, Ltd., by Sanders and Forster, Ltd., London, E.15.

It is a clear portal structure, 220ft. long and 20ft. high to the eaves. The sheeting to the roof and the roof cladding consists of Universal Asbestos and Canada Tile profile sheeting, and the roof lighting is produced by 44 Unilux translucent roof lights.

As the new hangar will be used for aircraft maintenance purposes, each end is equipped with eight leaf, bottom roller type sliding doors, each measuring 18ft. 9in. by 17ft. 3in. wide, which when opened are accommodated by outriggers on both sides of the hangar to provide openings extending the full span of the building.

Also incorporated in both gable ends are power operated roller shutter gates, which are 12ft. wide and provide the necessary clearance of 32ft. from the floor to accommodate the various aircraft of the Channel Airways fleet.

The main contractors for the Airways expansion programme are Essex Stonecraft, Ltd., Wickford, Essex.



Southend hangar under construction

LONDON BUILDERS NEED APPRENTICES

Present Figure Only Half Necessary Intake

THE need for the building industry to attract the right type of boy to fill the many vacancies for skilled men in its ranks was the theme of a talk given recently by Mr. R. A. Wood, chairman of the Apprenticeship Committee of the London Master Builders Association.

He indicated that 1961 had been a year in which technical training and education had been in the forefront of the news, instancing the Government's White Paper on technical education issued in January, and the Commonwealth Technical Training Week held during May. He explained that most members of the general public had only a very hazy idea of what a builder was.

Mr. Wood outlined the main divisions of the industry, contracting, house building and maintenance building, and said that unfortunately the general public's idea was sometimes that given to them by perhaps 10 per cent. of the industry who did all the things frequently attributed to builders in general.

London Craftsmen

In London there were employed about 100,000 craftsmen. This figure represented about 10 per cent. of the total labour force of the country. The estimated wastage was 2 per cent. per annum and thus it was necessary to take in 2,000 boys a year. The present training figure was approximately 1,000 boys per year—only half of the necessary intake.

Continuing, Mr. Wood explained the apprenticeship scheme for the industry. He outlined the work of the National Joint Apprenticeship Board, and traced the history of the scheme since its inception in 1946. Probably the principal attraction of the building industry's apprenticeship system was the fact that the industry itself undertook responsibility for the boy, through its Joint Apprenticeship Committees, by being a party to the Deed of Apprenticeship.

Hard Benefits

Emphasising the hard benefits of apprenticeship, Mr. Wood quoted regular weekly wages, paid annual and public holidays, sick pay, travelling allowances and technical education. This technical education was given in one of two ways in London, either by means of one day and two evening's training per week, or by a "block release" course which meant that the apprentices attended technical college for a total of six weeks in the year, usually broken down into two periods of three weeks.

Because of the increase in the degree of mechanisation and skill the building industry now needed better educated boys than ever before. It was one of the few industries in which an apprentice could clearly see his way to the top of the industry. Mr. Wood instanced a number of leading personalities in building who had started their careers as craft apprentices. In spite of this clear ladder of promotion it was difficult to attract boys into the so-called "dirty" trades such as plastering, painting and bricklaying. Mr. Wood emphasised that probably in the winter months the building industry was no job for the soft hearted.

£1M. EXETER UNIVERSITY EXPANSION SCHEME

TENDERS will be invited from selected contractors early in the New Year for the second stage of the £1m. Exeter University expansion scheme, with a view to starting work in April. The contract comprises the construction of a lecture block, with a floor area of 20,000 sq. ft., containing six lecture rooms.

It is hoped that work on the third stage, the erection of the Physics block, will commence towards the end of 1962.

The construction of the Chemistry building, which forms the first stage of the scheme, is now under way. John Garrett and Son, Ltd., Embankment Lane, Prince Rock, Plymouth, are the contractors.

Plans are by Sir Basil Spence, 1 Fitzroy Square, London, W.1, with Reynolds and Young, 329 High Holborn, London, W.C.1, acting as quantity surveyors. Ove Arup and Partners, 13 Fitzroy Street, London, W.1, are the consulting engineers and Steenson, Varming and Malcahy, 146 New Cavendish Street, London, W.1, the services consultants.

NEW ROAD FOR HEMEL HEMPSTEAD

Mr. Ernest Marples, Minister of Transport, has made a grant of £40,808 to Hertfordshire County Council towards the cost of constructing a new road in Hemel Hempstead New Town, estimated at £114,013. Hemel Hempstead Development Corporation are contributing £46,046.

About one-and-a-third miles long, the new road will run from Bury Road to Piccotts End. Together with a new road from the Town Centre to Bury Road, for which a grant has already been made, it will link the Town Centre with the B.486 route, which leads to A.5. Congestion in the main shopping centre of the New Town will be reduced when the two schemes are completed.

The road will have one 24ft. carriageway for the present, but this will be widened to 33ft. later. A pedestrian subway will be provided at Gadebridge Park.

ROAD IMPROVEMENT IN SUTHERLAND

At an estimated cost of approximately £170,000, four and a half miles of the Invershin-Ledmore-Lochinver road (A.837) between Ledmore and Stronechrubie will be reconstructed. The scheme, which has been approved by the Secretary of State for Scotland, forms part of the Crofter Counties programme and its full cost will be borne by the Government.

The length of road to be reconstructed is narrow and badly aligned. Under this scheme it will be provided with a two-lane carriageway (18ft. wide) within an overall width of 29ft. The alignment will be improved and several reinforced concrete culverts will be constructed.

The work will be carried out by W. and J. R. Watson, Ltd., Edinburgh, as contractors to the Sutherland County Council, who have prepared the scheme and will supervise its execution.

START NEXT YEAR ON DIESEL DEPOT

British Railways (Western Region) plan to commence work towards the end of next year on the construction of a servicing depot for diesel locomotives adjacent to the new marshalling yard at Margam, Glamorgan. The scheme is due for completion in 1964.

● Turn to page 766 for Talking of Safety, by "Dragee." A report on New Commissions for Private Architects appears on page 767, and Trade and Company News commences on page 769.

Current Constructional Activities

PROJECTS • CONTRACTS • AWARDS

THIS editorial feature provides readers with a comprehensive news service covering forthcoming private and public construction work. Commencing on this page information is given concerning future projects followed by details of tenders being invited. In the third section will be found news of tenders recommended for acceptance, tenders accepted and contracts awarded. Attention is also drawn to the advertisements covering contracts and appointments appearing in the front part of the *Journal*.

BUILDING AND DECORATING
(See also Housing Schemes)

Abbots Langley, Herts. — North West Regional Hospital Board propose extensions to the industrial training unit, Leavesden Hospital. Estimated cost £36,000.

Acton, Middx. — W. Macdonald, 5 Hurst Road, Eastbourne, Sussex, it the architect for the erection of a new factory between Stirling Road and Bollo Lane, for the West London Iron and Wire Works, Ltd. Estimated cost £40,000.

Aldershot, Hants. — Working drawings and bills of quantities in hand for the two-form entry Aldershot Camp County Junior School and sketch plans prepared for additional accommodation at Park Infants' and Park Junior Schools, for Co.E.C.

Alton, Hants. — C.C. recommended to approve scheme for alterations and additions to sanitary accommodation at Eggar's Grammar School. Estimated cost £1,340.

Andover, Hants. — C.C. recommended to approve the erection of two children's homes, estimated cost £17,000; working drawings being prepared for the Goodworth Clatford C.E. (Aided) Junior and Infants' School and bills of quantities for extension to Portway County Infants' School; sketch plan prepared for first instalment of Abbott's Ann Parochial (Controlled) Primary School.

Ashington, Northumb.—J. Hepworth and Son, Claypit Lane, Leeds, 2, are to erect a clothing factory and offices near the Jubilee estate, and outline plans by the firm, have been approved.

Aylesbury, Bucks. — R.D.C. are to invite tenders for the improvement during 1962 of pre-war houses at following sites: Aston Clinton (six), Cuddington (14), Grendon Underwood (eight), Upper Winchendon, Hardwick, Weedon (four each), Whitchurch (12) and Westcott (eight).

R.D.C. propose to invite tenders during 1962 for the erection of 16 garages at The Firs, Brill, and 21 garages at Bonnersfield, Long Crendon.

Barnsley, Yorks.—B.C. recommended to approve, subject to conditions, plans for the conversion of the Alhambra Cinema into a supermarket, for Rank Property Development, Ltd., 111 Westminster Bridge Road, London, S.E.1.

Barrowford, Lancs.—U.D.C. have approved outline plans for the erection of a new public house in Gisburn Road, Higherford, for Massey's Burnley Brewery, Ltd., Bridge End, Burnley. Detailed plans not yet prepared. Scheme subject to consent of planning and licensing authorities.

Belfast. — Ministry of Works propose the erection of an 18-storey office block in Victoria Square to house the telephone manager's staff and other government offices. Site works for the project will start in 1963 and the building will be completed in 1966. Estimated cost £750,000.

Bermondsey.—L.C.C. planning approval is being sought for a 10-storey office block at 40-46 Weston Street, for which the architects are Lam, Biel and Partners, 1 Allsop Place, London, N.W.1.

Berwick, Northumb. — Montague Burton, Ltd., Hudson Road Mills, Leeds, are to erect shops and offices at 48-52 Marygate, and have prepared their own plans.

Bexhill-on-Sea, Sussex.—B.C. recommended to proceed, subject to ministry approval, with the next stage of improvement and extension of the swimming bath.

Billingham-on-Tees, Dur.—U.D.C. have been authorised by the Ministry to proceed with a second shopping block in the town centre. The architects are Elder and Lester, Midland Bank Chambers, Town Square, Billingham. Work will start soon. Estimated cost £125,000.

Bishop's Stortford, Herts.—U.D.C. recommended to include in the 1962/63 programme, scheme for the reconstruction of Market Square public conveniences. Estimated cost £3,000.

Blackburn, Lancs.—Health Committee have approved in principle plan for two major health centres—one in the Montague Street redevelopment area, the other in the Bottomgate district, with satellite welfare centres on the outskirts of the town.

Boldon, Dur.—Tenders are to be obtained by the U.D.C. for the rebuilding of joiners' shop and stores at the Council Depot at East Boldon.

Bridlington, Yorks.—B.C. recommended to approve scheme for provision of dressing rooms at Gipsy Road playing fields. Estimated cost £2,650.

Leeds Regional Hospital Board have prepared sketch plans for improvements to Lloyd Hospital. Estimated cost £26,000.

Burnley, Lancs.—Improvement Committee have agreed to grant lease of a site on the Croft Street side of the new roundabout, facing Keirby Hotel to the Burnley Security, Ltd., in conjuction with Howarth Construction Co., Ltd., Trafalgar Street, for the erection of a departmental store. Estimated cost £300,000.

Burnley, Lancs.—Sketch plans prepared for extensions to St. Hilda's School, for the Salford R.C. Diocesan Trustees Registered. Peter R. Nuttall, architect, Westwood Chambers, 5 Kay Street, Rawtenstall, Rossendale and Harry Place and Partners, 46 Yorkshire Street, Burnley. Estimated cost £50,000.

Bury, Lancs.—E.C. have approved expenditure of £97,400 for school projects next year—a total of £29,000 for work on the new Church Central School, £21,000 of it for playing fields, £21,575 on the new St. Joseph's Primary School, and £14,500 on a school for educationally sub-normal children. Also other items including: Seedfield Secondary Modern £5,000 (buildings), £2,788 (playing fields), £4,420 (furniture); Derby School £400 (playing fields and fencing); adult education £10,000 (Athenaem adaptations); Wellington playing field £2,000, St. John's playing field £1,000; St. Peter's Primary School £4,750 (toilet facilities); Improvements are also planned at Brandlesholme Primary School and Holy Trinity School.

Cambridgeshire.—Fire Brigade Committee have prepared revised plans for fire station and headquarters fronting Parkside and East Road. Estimated cost £181,250.

Carlisle, Cumb.—Littlewood Stores, Ltd., are to start work early next year on the erection of new stores at Carlisle.

Castle Ward, Northumb.—A. Alderson and Co., 148 High Street West, Sunderland, are to erect wool store, packing and despatch departments, and offices on the Ponteland industrial site. No contracts let. The architects are Matkin and Hawkins, Barclays Bank Chambers, Fawcett Street, Sunderland.

Chiswick, Middx. — C.C. recommended to approve the erection of a fire station at the junction of Wellesley Road / Heathfield Gardens. Estimated cost £62,110.

Christchurch, Hants.—C.C. recommended to approve scheme for provision of additional classroom accommodation and equipment at the John Farmer Training Centre. Estimated cost £3,550.

Clayton-le-Moors, Lancs. — U.D.C. recommended to instruct the surveyor to prepare drawings, etc., for the erection of a sports pavilion for Woodlands Park. Estimated cost £13,000.

Clitheroe, Lancs.—B.C. have approved plans for an old people's hostel on land off Queen's Road, for C.C.

Darlington, Dur.—Borough Architect has prepared plans for the first stage of proposed new municipal buildings.

B.C. recommended to erect clinics at Springfield and Skerne Park Schools at a cost of £6,500 each.

Daventry, Northants.—Rugby Industrial and Provident Co-operative Society, Ltd., 45 Chapel Street, Rugby, have applied for planning permission to erect a slaughter house at Yelvertoft Road, Crick. Estimated cost £20,000.

Deal, Kent.—B.C. recommended to request Martindale and Oldacres, architects, 27 Victoria Road, Deal, to prepare detailed plans for improvements at Stockdale Gardens. Estimated cost £40,000.

Dudley, Worcs. — B.C. recommended to appoint Edwards and Blackie, 34 Vicarage Road, Birmingham, as consulting engineers for the preparation of schemes for reinforced concrete, steelwork, heating and electrical services for the Holly Hall Secondary Modern School.

Dundee.—Dundee United Football Club, are to extend the concrete terracing at Tannadice Park. Plans have been approved.

Ealing, Middx. — C.C. recommended to approve scheme for alterations and adaptations at Amherst Lodge Mother and Baby Home. Estimated cost £1,850.

Eastleigh, Hants. — C.C. recommended to approve scheme for alterations to provide additional dental surgery at Eastleigh Dental Clinic, estimated cost £1,874; working drawings and bills of quantities in hand for the erection of Chandlers Ford Oakmount County Junior School.

Edinburgh.—Dean of Guild Court have approved the following: erection of a bonded warehouse at Slateford Road for North British Distillery Co., Ltd., Wheatfield Road, Edinburgh, 11. Estimated cost £130,000; erection of a police station at Mayfield Road, Liberton Dams, for City Council, £12,000.

Edinburgh.—Dean of Guild Court have approved plans for the demolition of the old church in Dairy Road and erection on site of a store, for F. W. Woolworth, Ltd. Estimated cost £46,500.

Elgin, Moray.—B.C. recommended to approve in principle scheme for extensions to the Munro Baths. Estimated cost £130,000.

Elstree, Herts.—L. H. Sping, Deacons Court, Barnet Lane, Elstree, has submitted to R.D.C. outline application for the erection of a 12-storey building incorporating car showrooms, repair shop and multi-storey car park on land at the junction of Rowley Lane/Elstree Way.

Erith. Kent.—B.C. to apply to C.C. for outline planning permission for the redevelopment of the town centre, including the erection of a shopping precinct, public hall and office block. Estimated cost £5m.

Evesham, Worcs. — R.D.C. to submit to Ministry for approval, scheme for modernising 39 houses at Broadway. Estimated cost £8,508.

Exeter.—Salisbury and Chandler, architects, Coombe House, Coombe Street, Exeter, have prepared plans for the modernising of Topsham Barracks. Estimated cost £500,000.

Fareham, Hants.—C.C. recommended to approve scheme for phase I of Crofton County Infants' School, estimated cost £16,850; sketch plan prepared for Wallisdean three-form entry County Junior School and five-form entry boys' county secondary school.

Feltham, Middx.—C.C. recommended to approve scheme for the provision of a garage, e.c., and an ambulance station at Fagg's Road. Estimated cost £19,500.

Filey, Yorks. — U.D.C. recommended to apply for sanction to borrow £15,264 for development scheme on the Royal Parade.

Finchley, Middx.—C.C. recommended to approve scheme for the erection of a mental health recuperative hostel at Park House, High Road. Estimated cost £46,120.

Gateshead, Dur.—Quantities are being prepared for reconstructing stores at 469-473 Durham Road, Low Fell, for Carruthers and Son. The architects are Arthur and Kirkup, 13 Swinburne Street, Gateshead.

Glasgow. — Baron Bercott and Associates, 118 Blythswood Street, Glasgow, C.2 are the architects, William I. Talbot, 175 St. Vincent Street, Glasgow, C.2 the quantity surveyor and Blyth and Blyth, 135 George Street, Edinburgh, 2 the civil engineers for a seven-storey office block at the corner of Waterloo Street and Douglas Street. Estimated cost £240,000.

Gloucestershire — Ministry have approved E.C.'s scheme for extensions to Hartpury Farm Institute. Estimated cost £65,000.

Godalming, Surrey.—B.C. recommended to approve outline application for the demolition of 1 Ockford Road and 10-16 Holloway Hill and provision on sites of showrooms, offices and open and covered parking spaces, for H. A. Jackson, Ltd., Hurtmore Road, Godalming.

Gosport, Hants.—Working drawings being prepared for the erection of Gosport Day E.S.N. School and sketch plans for completion of Brune Park County High School, for Co.E.C.

Borough Engineer to proceed with plans for a new children's paddling pool at Stokes Bay,

near the Stokes Bay Sailing Club premises. Estimated cost £2,000.

Halifax, Yorks. — West Riding E.C. have approved scheme for the rehabilitation of the Rishworth C.E. (aided) Primary School, at an estimated cost of £12,531.

Hampshire.—C.C. recommended to approve schemes for improvements to sanitation at Bentley C.E. (Controlled) School and two additional classrooms at Waterlooville Stakes Hill County Infants' School. Estimated cost £2,250 and £3,250 respectively.

M.E. have approved the inclusion of the following in the 1962-63 programme for E.C.: Grammar and Secondary Schools—Fareham County Secondary Boys', £345,615, Purbrook County Secondary Girls', £283,750, Cove County Secondary Mixed — extensions, £125,600, Eastleigh Barton Peveril Mixed Grammar — extensions, £82,550, Fareham County Secondary Girls'—extensions, £147,650, Gosport Brune Park County Secondary and Grammar Mixed—phase II, £283,750, Romsey County Secondary Mixed — extensions, £73,700; Primary Schools — Basingstoke Winklebury County Junior, £74,300, Bordon County Junior, £71,550, Colbury County Junior, £70,550, Cove Manor County Infant, £81,375, Havant Parkhouse County Infant, £77,860, Blackmoor C.E. (Aided) Junior and Infant £12,350; Further Education—Basingstoke Technical College—phase II, £103,365.

Hampstead.—L.C.C. planning approval it being sought for 20 flats and 12 garages at 42 Primrose Hill Road and 27 Fellows Road, for which the architect is Hugh Sprince, 75 Blackfriars Road, London, S.E.1; and for a revised application by Douglas Stephen and Partner, architects, 30b Wimpole Street, W.1 for shop, offices and reesidential accommodation at Swis Cottage.

Hartlepool, Dur.—Durham Co. E.C. are to erect junior and infant schools at Durham Street.

Harrow, Middx.—B.C. have no objection to the proposed police station at Northolt Road, for C.C.

Havant, Hants.—C.C. recommended to approve scheme for two additional classrooms at the grammar school, estimated cost £3,250; working drawings being prepared for erection of Havant Day E.S.N. School; sketch plan prepared for Parkhouse County Infants' School.

Heston and Isleworth, Middx.—B.C. recommended to include in the 1962/63 programme, scheme for the construction of an old people's retreat in Inwood Park. Estimated cost £3.000.

Houghton-le-Spring, Dur.—Ministry are considering the Council's plan to build a communal hall on the Barnwell estate; Vaux and Associated Breweries, Ltd., Sunderland, are to rebuild their Jolly Farmers public house at the Market Place; The North-Eastern Electricity Board, Dunning Street, Sunderland, have prepared an outline scheme for the erection of offices, stores and garages at Station Road, Penshaw.

Hull.—Ministry have approved the compulsory purchase of land by the City Council for a multi-storey car park which will link up with a shopping area and link road between Jarratt Street and George Street.

Hull.—University hopes to invite tenders early next year for the erection of a hall of residence. The architect is Sir Leslie Martin, Cambridge Professor of Architecture. Estimated cost £150,000.

Jarrow, Dur.—Arndale Property Trust, Bradford, are considering the erection of an office block, seven or eight storeys high. The firm have their own architect.

Kettering, Northants.—B.C. recommended to grant, subject to conditions, planning permission for the development of land east of the Ise Brook for industrial and residential purposes for Adkins and Shaw (Building Contractors), Ltd., St. James Road, Northampton.

Kincardineshire.—C.C. propose a new roads depot at Portlethew crossroads with four houses for workmen. Estimated cost £22,600.

King's Lynn, Norfolk.—B.C. recommended to invite tenders for the erection of three shops with four two-storey maisonnettes at the Sun Inn site.

Leeds. — Regional Hospital Board have approved schemes for development work and new equipment at the Seacroft, Meanwood Park, Killingbeck and St. George's hospitals. Estimated cost £60.000.

Leeds.—Town Planning Committee considering plans for erection of the new Southern fire station on the site of the present station at Dewsbury Road and Middleton Crescent. Estimated cost £70,000.

Lewisham. — L.C.C. planning approval is being sought for an eight-storey block of flats at 47 Dacres Road, for which the architect is Norman Starrett, 269 King Street, London, W.6.

Liverpool.—M.E. have approved the erection of new headquarters off Little Heath Road and Durning Road for Speke Boys' Club and Edge Hill Boys' club respectively. Estimated cost £20,000 and £19,000.

Lochgilphead, Argyll.—B.C. have approved in principle plans for a new fire station to be erected at Ropework Park.

Longbenton, Northumb. — David Brown, 10 Lambton Road, Jesmond, Newcastle upon Tyne is the architect for proposed R.C. Church at Whitley Road, Benton.

N.C.B. are to extend the pithead baths, and erect new boiler house, medical centre, and lamp unit at Weetslade Colliery, Longbenton, and have prepared their own plans.

Manchester. — Town Planning Committee have approved in principle plan for demolition of the Queens Hotel and the erection of an office block on the site overlooking Piccadilly and the city centre, for Ind Coope, Ltd., 8 Cumberland Street, Manchester, 3.

Middlesex.—C.C. recommended to approve scheme for extensions and adaptations to Bulstrode Secondary Boys and Girls Schools. Estimated cost £286,296.

Midhurst, Sussex.—R.D.C. have approved scheme for improvements to Foundry Cottages at Heyshott. Estimated cost £2,632.

Newcastle upon Tyne.—Additions are proposed to St. Joseph's School, Armstrong Road. The architect is E. A. Gunning, 18 Eldon Square, Newcastle.

Saxone, Lilley and Skinner Holdings, Ltd., Kilmarnock, Scotland, are to convert the Imperial Cafe, Grainger Street, Newcastle into a store for Saxone Shoes.

Northallerton, Yorks. — Ministry have approved scheme for the erection of a chapel at Friarage Hospital for Newcastle Hospital Board. P. H. Knighton, chief architect. Estimated cost £7,900.

Northumberland.—During 1962-63, the C.C. is to start work on the erection of a youth block at Alnwick Secondary School, estimated cost £19,000; and a youth wing at Guide Post Secondary School, £9,800. Plans and estimates have been approved for primary school at Horncliffe, £23,500.

Nottingham.—Working drawings are being prepared for the erection of the Church of the Good Shepherd at Woodthorpe, for the Nottingham Roman Catholic Diocesan Trustees. Architect for the scheme is Gerard Goalen, 19 The Rows, Stone Cross, Harlow, Essex, and quantity surveyors are Davis, Belfield and Everest, 9 Ashley Place, London, S.W.1. Estimated cost £60.000.

Nuneaton, War.—B.C. to proceed with plans for construction of a swimming bath and have instructed Borough Surveyor to have plans to go to tender on June 1. Estimated cost £270,000.

Ossett, Yorks. — B.C. recommended to approve plans for the extension of factory and office block at Moorcroft Works, for Woodhead-Monroe, Ltd.

Oswaldtwistle, Lancs.—U.D.C. recommended to approve an application for proposed site in Aspen Lane for new parish church of All Saints.

Peterborough. — Co. Planning Committee have approved outline application for the erection of offices and a workshop block at Tower Works, Fengate, for Mitchell Engineering, Ltd.

Plymouth, Devon.—City Council recommended to approve scheme for the erection of garage accommodation at proposed combined section civil defence training ground at Bowden's Battery. Estimated cost £8,300.

Portsmouth. — Hampshire C.C. recommended to approve scheme for two additional classrooms at Cowplain County Junior School. Estimated cost £3,250.

Portsmouth.— E.C. to include the provision of a youth wing at Manor Court Modern School for Boys and Girls, Cosham, in 1962-63 programme. Estimated cost £12,000.

Ripponden, Yorks.—West Riding E.C. have approved plans for erection of a branch library. Estimated cost £3,500.

St. Albans, Herts.—City Council have approved scheme for the erection of kitchen, dining hall, library, classrooms and offices for school use at the High School, Townsend Avenue.

St. Albans, Herts.—Paul Mauger and Partners, 31 Church Street, Welwyn, are the architects for the erection of a new Roman Catholic Church and Presbytery at Vesta Avenue.

St. Marylebone.—L.C.C. planning approval is being sought for shops, showrooms, workrooms and flats at 38-56 Langham Street, 53-67 Great Titchfield Street, 1-5 Riding House Street and 1-11 Middleton Buildings, for which the architects are Devereux and Davies, 3 Gower Street, London, W.C.1.

Seaton Valley, Northumb.—R. Eggleston, 3 Grange Crescent, Sunderland is the architect for a proposed hall, for the Shiremoor Independent Methodist Church.

Skegness, Lincs.—U.D.C. to proceed with scheme for improvements to the boating lake buffet. Estimated cost £7.000.

South Shields, Dur.—Work to start shortly on the erection of new premises for the Cleadon and District Working Men's Club. The architect is J. M. Angus, 3 Gallowgate, Newcastle upon Tyne.

Stepney.—L.C.C. planning permission is being sought for an office and commercial building at 62-88 Commercial Road, Backchurch Lane and Sander Street, for which the architects are C. H. Elsom and Partners, 10 Lower Grosvenor Place, London, S.W.1.

Stockton-on-Tees, Dur.—Smith and Twentyman, 32 Bridge Road, are to erect office block, workshop and stores, on the Portrack estate.

Stoke-on-Trent, Staffs.—City Council recommended to approve modified scheme of improvements at 23 Blakelow Road, Abbey Hulton; approve in principle, schemes for improvements to Stoke police station, £10,500; revised scheme for first stage of new fire brigade headquarters, Hanley, £154,500; subject to Home Office approval, plans for provision of Civil Defence control centre in basement of Central Library on Civic Centre site, £17,750.

Sunderland, Dur. — British Transport Commission (North-eastern Region), York, propose shops, offices and flats at Ryhope.

Representatives of a Canadian firm have submitted plans to the B.C. for a proposed bowling centre at Dykelands Road. The architects are Munce and Kennedy, 34 Seymour Street, London, W.1. Estimated cost £200,000.

Tipton, Staffs.—Ministry have approved C.C.'s plan for an old peoples' home at Birch Street.

Up Holland, Lancs.—U.D.C. have approved plans for the erection of a church and Sunday school at the junction of Alma Hill and Rivington Drive for the Methodist Church Trustees.

Wakefield, Yorks.—E.C. to submit to the M.E. revised sketch plans for the erection of St. John's C.E. Primary School on land off Belgravia Road, Nr. Newton Bar. Estimated cost £40,000.

M.E. have approved plans and tenders to be obtained for the erection of the Standbridge County Primary School, Kettlethorpe. Estimated cost £50,000.

E.C. have approved plans, etc., for development of Sandal Endowed School, and to the immediate provision of two additional classrooms and toilets for infants' department. Subject to M.E. approval tenders will be invited as soon as possible.

Wakefield, Yorks.—Town Planning approval granted for erection of new shopping block at Nos. 1 to 7 Northgate, for Alexandre, Ltd. D. Greenwood, staff architect; Langdon and Every, quantity surveyors, 4 Church Street, Liverpool, 1, and Laithwaite and Partners, 58 Victoria Street, London, S.W.1 are the structural engineers.

Wandsworth.—L.C.C. planning permission is being sought for 50 flats and 36 garages at Albert Drive and Victoria Drive, for which the architect is H. Hubbard Ford, 35 South Audley Street, London, W.1, and offices, shops, etc., at 91-101 Tooting High Street, for which the surveyors are Edwin Hill and Partners, 22 Borough High Street, London, S.E.1.

Watford, Herts. — B.C. recommended to approve, subject to conditions, outline plans for the erection of offices, canteen, stores, etc., at Sandown Road/Bushey Mill Lane, for British Moulded Hose Co., Ltd.

West Ham, Essex.—North East Metropolitan Regional Hospital Board have submitted to Ministry for approval, plans for extensions at Queen Mary's Hospital for the East End, West Ham Lane, to include two eight-storey blocks, one which will be built within the present hospital/town hall block, and the other on the vacant Methodist conference hall site in West Ham Lane.

Westminster.—L.C.C. planning permission is being sought for shops and offices at 188-198 Strand, 1-11 Arundel Street, 7-13 Milford Lane, 1-11 Water Street and 3 Tweezers Alley, for which the architects are Arthur Swift and Partners, 21 Upper Grosvenor Street, London, W.1.

West Suffolk.—C.C. have approved the erection of a home for the aged at Haverhill during 1962-63.

Wigan, Lancs.—B.C. propose an all purpose nurserv-reception home at The Elms, Wigan Lane. Estimated cost £10,000.

Winchester, Hants.—C.C. recommended to approve scheme for replacement of gardening classroom at the County Secondary Boy's School. Estimated cost £1,143.

Co. Castle Committee have appointed G. Tomalin, surveyor, 1 Gower Street, London, W.C.1, to prepare a survey of the site of the new Assize Courts and R. T. James and Partners, 6 Lower Grosvenor Place, London, S.W.1, as structural consultants for the project. The architect is L. de Soissons of L. de Soissons, Peacock, Hedges and Robertson, 3 Park Square Mews, London, N.W.1.

Woolwich.—B.C. recommended to establish a highways sub-depot at Mottisfont Road, Abbey Estate. Estimated cost £3,705.

DEMOLITION

Farnworth, Lancs. — B.C. recommended to approve the demolition of the public conveniences at Moses Gate.

ELECTRICAL

Eastbourne, Sussex.—B.C. recommended to approve plans, apply to M.T. for grant aid and invite tenders for the provision of traffic control signals at the junction of Upperton Road and The Avenue.

Leigh, Lancs.—Lancs. E.C. recommended to approve the renewal of the elctrical installation at Bedford Methodist School. Estimated cost £1,559.

GAS AND WATER SUPPLY

Cemaes, Pembs. — R.D.C. to submit to Ministry for grant aid scheme for the provision of a water supply extension to serve the Cippin and the Gwm Degwer areas and 17 houses and farms in the Borough of Cardigan. Estimated cost £32,000.

Dagenham, Essex. — B.C. to submit to Ministry for approval in principle, detailed scheme for the construction of a balancing reservoir on the former allotment land adjoining Wood Lane, north of the Civic Centre.

Dulverton, Som.—R.D.C. recommended to proceed with scheme for provision of a water supply to Brompton Regis. Estimated cost £5,500.

Oundle and Thrapston, Northants. — C.C. recommended to approve in principle R.D.C.'s water supply scheme for Apethorpe, King's Cliffe and Woodnewton. Estimated cost £10,500.

HARBOURS, PIERS AND SEA DEFENCE WORKS

Smallburgh, Norfolk.—R.D.C. to submit to Ministry for approval, outline plans for the final stage of the Happisburgh coast protection scheme.

Tynemouth, Northumb.—R. T. James and Partners, Clavering Place, Newcastle upon Tyne prepared a scheme for reconstructing war-damage to superstructure of North Shields Fish Quay, for the B.C.

Wigton, Cumb.—R.D.C. has decided to give further consideration to a coast protection scheme at Skinburness estimated to cost between £80,000 and £100,000.

HEATING AND VENTILATING

Eastbourne, Sussex.—B.C. recommended to appoint Freeman, Fox and Partners, 25 Victoria Street, London, S.W.1, as consulting engineers and obtain a tender from Benham and Sons, Ltd., Brighton, for the reinstatement of the air conditioning plant at Beachy Head to its original state.

HOUSING SCHEMES

Armagh.—City Council propose the erection of 100 more houses at Orangefield, 70 at Barrack Hill and 48 at Drumadd. The schemes are at an advanced stage and the Drumadd houses will soon be going out to tender.

Northern Ireland Housing Trust propose the erection of 260 houses at Desart.

Aylesbury, Bucks.—R.D.C. propose, subject to Ministry approval, to invite tenders during 1962 for the erection of 16 dwellings at Haddenham, four at Oakley, two at Weston Turville, eight at Brill, six at Long Crendon and two at Bierton.

Bedlington, Northumb. — Plans have been approved for the erection of shops and flats on the Wansbeck East Estate for J. T. Bell and Sons, Market Street Chambers, Newcastle upon Tyne.

Bexper, Derbys.—R.D.C. to prepare amended plans for the erection of 30 old people's bungalows at Corn Hill, Allestree.

Birkenhead, Ches. — Housing Committee have approved layout plans for 125 houses and doctor's house and surgery at Woodchurch estate.

Blairgowrie and Rattray, Perths.—Department of Health have approved in principle 30 houses during 1962, for B.C.

Boldon, Dur.—Brannen (Contractors), Ltd., 53 Seatonville Road, Whitley Bay, are to erect 24 houses at Station Road, East Boldon.

Brentford and Chiswick, Middx.—B.C. are to acquire, subject to Ministry approval, land at Syon Park, Isleworth, for the erection of 119 dwellings, 97 garages and four shops.

Burton Latimer, Northants.—U.D.C. have approved, subject to conditions, layout plans for the development of the Meadow View estate for B. A. Evans, Ltd., Higham Road.

Camberwell.—L.C.C. planning approval is being sought for houses and maisonnettes at Pond House, Village Way, for which the architects are Austin Vernon and Partners, 5 Buckingham Place, London, S.W.1.

Ceiriog, Denbighs.—R.D.C. to prepare new scheme for the erection of old people's bungalows at Llanrhaedr.

Chatham, Kent.—B.C. are negotiating with John Laing and Son, Ltd., Mill Hill, London, N.W.7, for the preparation of scheme for the development of the Ordnance Street area.

Cwmbran, Mon.—U.D.C. have approved layout plans for the new Fairwater II housing site at Penywaun, for Development Corporation.

Dagenham, Essex. — B.C. recommended, subject to planning permission being obtained, to invite tenders for the erection of seven houses and garages at Bury Road and 14 old people's flats and six old people's bungalows at Rectory Road.

Deal, Kent.—B.C. recommended to prepare plans for the erection of dwellings for old people and handicapped persons at Delane Road, Orchard Avenue estate.

Dudley, Worcs. — B.C. recommended to request Wates, Ltd., 1,258 London Road, London, S.W.16, to submit for consideration, proposals for the redevelopment of the St. John's Street, Netherton area.

Ealing, Middx.—B.C. recommended to approve in principle, plans for old people's flats at The Mount, Northolt Park, Ferrymead Avenue and a site adjoining the old people's home at Northolt Park.

Eastry, Kent.—R.D.C. to apply for sanction to borrow £22,240 for the erection of bungalows at three villages.

Edinburgh.—Dean of Guild Court have approved 44 houses at Granton Crescent, for City Council. Estimated cost £80,000.

Esher, Surrey.—U.D.C. have approved plans for the erection of 12 old people's bungalows and one block of 16 bed-sitting rooms, etc., at Mole Cottage, Walton Road, West Molesey; to submit to Ministry for approval 1962 programme, comprising one block of old people's dwellings at Sugden Road, Long Ditton.

Evesham, Worcs. — B.C. have approved scheme for nine dwellings at corner of Henry Street and Bewdley Street and seven houses in Bewdley Street.

Godalming, Surrey.—B.C. recommended to prepare alternative layout plans for the erection of one-bedroom dwellings at The Glade, Farncombe.

Halesowen, Worcs. — B.C. planning the erection of 44 old people's flatlets on site of Beulah Lodge.

Hartlepool, Dur.—B.C. have approved plans for 32 houses at Sandbanks Drive, for Taylor and Evans, Ltd., Elwick Road, West Hartlepool.

Hawarden, Flint.—R.D.C. recommended to approve the erection of 12 old people's bungalows at Lansdown estate and two at Broad Oak estate.

Hebburn, Dur.—William Leech, Ltd., St. James Street, Newcastle upon Tyne, are to develop the Blue House Farm housing estate.

Heckmondwike, Yorks.—U.D.C. have approved housing sites on the south side of Dale Lane (which, it is proposed, should be used for three-storey dwellings), land in Lobley Street and at the junction of Dale Lane and Roebuck Street; also approved land at Dale Lane for one-bedroom houses.

Hertford. Correction.—Plans approved for 25 houses and 27 garages in Mount Road, for Swift-Planned Developments, Ltd., 18a Church Street, Enfield, Middx., and not of 39 Victoria Street, London, S.W.1, as previously reported.

Houghton-le-Spring, Dur.—U.D.C. surveyor to prepare layout scheme for the erection of houses on 35 acres of land at Sunniside.

Charles Bell, Sons and Barnes, 4 Green Terrace, have prepared proposals for housing developments on land at Glebe Farm.

Hythe. Kent.—Ministry raise no objection to B.C.'s 1962 housing programme, comprising the erection of 12 one-bedroom flats.

King's Lynn, Norfolk.—B.C. recommended to invite tenders for the erection of 21 dwellings as stage II of the Highgate estate.

Leatherhead, Surrey. — U.D.C. to inform Ministry that they hope to invite tenders during 1962 for the erection of approximately 30 dwellings at Kingston House Gardens.

Leeds. — City Architect has prepared a scheme for the erection of 17-storey block of flats, four-storey blocks of maisonnettes and 155 garages in Marlborough Street, for the Housing Committee; submitted layout to the Housing Committee for 84 new dwellings (in two-storey houses and four-storey maisonnettes) to be built on the west side of Half Mile Lane opposite Stanningley Park; and a price for the building of 128 four-storey maisonnettes, four flats over garages, and 123 garages at Harehills Lane, Iveson House, Intake, and Moor Grange also to be considered.

Leominster, Heres.—Ministry have approved the erection of 150 houses between the sports club's ground and grammar school's playing field for Hickman Contractors, Ltd., Contract House, Church Street, Brierley Hill, Staffs.

Middlesbrough, Yorks. — Corporation Housing Committee have approved layout plans by the Borough Engineer for a new housing estate between Ormesby Road and Cargo Fleet Lane. The scheme provides for 432 houses, two blocks of multi-storey flats (152 dwellings), 407 garages, and a site for a social club.

Midhurst, Sussex.—R.D.C. have approved layout plans for the erection of 30 units of accomodation and 19 garages at Tipper Lane, South Harting.

Newcastle-under-Lyme, Staffs.—B.C. recommended to submit to Ministry for approval 1962 housing programme comprising 300 dwellings.

Newcastle upon Tyne.—John T. Bell and Sons, Market Street Chambers, Newcastle, are seeking permission to construct multi-storey luxury flats on land near Adderstone Crescent and Jesmond Dene Road.

City Council are planning the erection of 700 houses at Kenton, and the education authority also propose two new schools in the same area. E. Lyons, Mill House, Bridge Road, Hampton Court, Surrey, has been appointed architect for the work.

Peterborough. — Co. Planning Committee have granted permission for the erection of 10 detached and 30 semi-detached houses at Westwood, for the Netherton Building and Construction Co., Ltd., 13 Milton Street.

Perth.—Dean of Guild Court have approved plans for the erection of 48 flats on site of the former Potterhill House, Bridgend, for B.C.

Plymouth, Devon.—City Council recommended to approve revised scheme for the erection of 46 dwellings, a sub-office for the Housing Estates Manager, and six garages at the junction of Torridge Way/Blandford Road. The layout provides also for a petrol filling station, a clinic, car parking space and extra garage space, estimated cost £103,870; sketch plans for the erection of eight flats and six garages at Lambhay Street, £29,039.

Portsmouth. — Housing Committee invite tenders from selected contractors for a 20-storey block of 76 flats at Butcher Street, Portsea.

Rugeley, Staffs. — U.D.C. propose the erection of 160-170 houses during 1962-63.

Smethwick, Staffs.—B.C. recommended to approve revised schemes for 320 dwellings, four-storey car port, garages and parking spaces at redevelopment site 3 and 228 dwellings, four-storey car port and 24 garages at redevelopment site 4; plans for 20 dwellings and 13 garages on site of Broadmoor House.

South Kesteven, Lincs. — R.D.C. recommended to approve that the tender dates should be as follows: December, 1961—Aslackby, Pointon and Thurlby four dwellings each; March, 1962—Corby Glen six, Folkingham four, Billingborough two; June, 1962—Horbling eight.

Stockton-on-Tees, Dur.—Moore and Cartwright, High Street, Norton-on-Tees, who are building 57 houses at Victoria for the B.C. have been allocated a further 57 dwellings.

Stoke-on-Trent, Staffs.—City Council recommended to appoint Donovan H. Lee and Partners, 66 Wilton Road, London, S.W.1, as consultant structural engineers and Durnford Lee and Wardell, Wolstanton, Newcastle-under-Lyme, as mining consultants, for the development of land at Bucknall Old Road and Bucknall New Road by the erection of flats.

Teignmouth, Devon. — U.D.C. to inform Ministry that tenders are to be invited during March 1962 for the erection of 13 houses at Kingsway and six old people's bungalows at Speranza Grove.

Tenterden, Kent. — R.D.C. to submit to Ministry for approval 1962 housing programme, comprising the erection of 12 houses at High Halden, eight at Rolvenden and six at Appledore.

Thetford, Norfolk.—B.C. recommended to approve layout plans for 24 houses at Magdalen Street estate and 20 dwellings at St. Mary's Row.

Tynemouth, Northumb.— B.C. have prepared a layout plan for shops and maisonnettes in Charlotte Street, North Shields. Stage five of the B.C.'s East End development scheme, North Shields, will include 50 dwellings in three-storey blocks, and stage six 120 dwellings in three or four storey construction.

Plans have been approved for a further large batch of houses on the Marden West estate for J. T. Bell and Sons, Market Street Chambers, Newcastle upon Tyne; R. Sleightholme, Ltd., St. Oswin's Place. Tynemouth are to erect houses on the Moorhouses Estate West.

Watford, Herts. — B.C. recommended to approve in principle, sketch plans for the erection of four dwellings for elderly persons with fourteen garages at the rear of Liverpool Road.

B.C. recommended to approve in principle, plans for the erection of block of 13-storey flats, comprising 66 flats at Bushey Mill Lane, for Taylor Garnett, Evans and Co., Ltd.

B.C. recommended to approve, subject to conditions, outline plans for the layout of land fronting High Road, Leavesden and new

estate road by the erection of 16 maisonnettes, five houses and 21 garages, for A. Pitkin, Ltd., 65 High Street, Rickmansworth.

Whitby, Yorks. — U.D.C. recommended to approve the erection of 22 houses on the Stakesby estate.

Whitley Bay, Northumb.—Waring and Netts, 2 Landsdowne Terrace East, Gosforth, Newcastle upon Tyne have prepared plans for 100 houses, near Cragside for M. J. Liddell and Sons., 36 Great North Road, Newcastle.

The local planning authority have deferred consideration of a scheme, also prepared by Waring and Netts, for eight terrace houses, five flats, four shops and maisonnettes and 17 lock-up garages at Seaton Sluice.

Windsor, Berks.—R.D.C. have approved in principle scheme for the erection of old people's flatlets at Queen's Close, Old Windsor, during 1962.

Worthing, Sussex.—R.D.C. recommended to approve 1962 programme, comprising the erection of 66 flats at Busticle Lane, Sompting.

Wycombe, Bucks. — R.D.C. are to invite tenders for the erection of 46 dwellings at Longswick Road, Princes Risborough.

MISCELLANEOUS

Londonderry. — City Finance Committee have approved an aerial survey be carried out over the Waterside area.

PLAYING FIELDS, PARKS, ETC.

Bishop's Stortford, Herts.—U.D.C. recommended to include in the 1962-63 programme, scheme for the layout of Heath Row playing fields. Estimated cost £5,000.

Blackburn, Lancs.—B.C. recommended to approve sketch plan for children's playground in Corporation Park.

Eastbourne, Sussex.—B.C. recommended to approve the provision of three En-Tout-Cas tennis courts at Gildredge Park and the conversion of two grass courts into tarmac hard courts at Hampden Park. Estimated cost £2,530 and £1,250 respectively.

Leigh, Lancs.—Lancs. E.C. recommended to approve layout of grounds, etc., at Manchester Road County Secondary School. Estimated cost £1,157.

Stoke-on-Trent, Staffs.—City Council recommended to prepare scheme for layout of land at Bentillee for recreational purposes.

Woolwich.—B.C. recommended to approve a layout plan for landscaping of the communal areas forming part of the Strongbow Road scheme.

RIVER AND FLOOD PREVENTION WORKS

Chippenham, Wilts. — Ministry have approved a flood protection scheme for Chippenham for the Bristol Avon River Board. Estimated cost £91,000.

Isle of Wight.—River Board have approved scheme for improving a section of the Eastern Yar by removing the silt from St. Helens outfall to Brading sluice. Estimated cost £2,300.

ROADS, BRIDGES AND SITE WORKS

Bishop's Stortford, Herts.—U.D.C. recommended to include in the 1962-63 programme, scheme for improvements to Haymeads Lane. Estimated cost £7,500.

Bolton, Lancs.—B.C. recommended to apply for sanction to borrow £40,800 (less grant) for the widening and surfacing of Belmont Road.

Bricket Wood, Herts.—C.C. are to consider scheme for improvements to Smug Oak Lane. Estimated cost £19,000.

Buxton, Derbys. — B.C. recommended to prepare plans for the making-up of part of Ladycroft Avenue.

Eastbourne, Sussex.—B.C. recommended to invite tenders for the making up of Tutts Barn Lane

Essex. — C.C. recommended to approve scheme for the provision of a short length of dual carriageway, with waiting bays and acceleration and deceleration splays for turning vehicles at the eastern end of the Ramsey by-pass, also widening and realignment of the existing road between the end of the by-pass and its junction with Mayes-lane near Ramsey Church. Estimated cost £38,000.

Farnborough, Hants.—C.C. recommended to approve scheme for tarpaving and paths at St. Peter's C.E. (Aided) School. Estimated cost £2,471.

Farnworth, Lancs.—B.C. recommended to invite tenders for the making-up of Edith Street and Helen Street; apply for sanction to borrow £7,000 for the completion of road works on the Plodder Lane South 2 site.

Hampshire.—C.C. have received notification from M.T. that the following major improvement schemes will be authorised during the current financial year: Trunk road A.303 (a) Second carriageway for west-bound traffic from the roundabout now under construction at Bullington Cross, westwards to the bridge over the Winchester-Newbury railway, £30,000; (b) provision of a new bridge over the Winchester-Newbury railway west of Bullington Cross together with approach works, £54,000; (c) the continuation of the above mentioned second carriageway, westwards across Barton Stacey Camp, £60,000. Trunk road A.3—Realignment and widening of the existing road from Weston railway bridge to The Causeway at Bolinge Hill, Petersfield, £40,000. Trunk road A.33—Provision of a slow lane for south-bound traffic on Otterbourne Hill, £15,000.

Harrow, Middx. — B.C. have approved schemes for making-up Ashdale Grove and Kenneth Gardens, Stanmore.

B.C. recommended to approve scheme for the improvement of junction at King's Road/Newquay Crescent. Estimated cost £2,500.

Hebburn, Dur.—U.D.C. to borrow £42,162 for constructing roads, sewers and other site works on the Ponds housing site.

Hendon, Middx.—C.C. recommended to approve subject to grant aid scheme for the widening and improvement of Hammers Lane. Estimated cost £7,600.

Hythe, Kent.—B.C. recommended to approve scheme and apply for sanction to borrow £7,500 for the widening of Bartholomew Lane (part).

Kincardineshire.—Roads Committee recommend two-lane concrete bridges should be built over fords near Drumtochty Castle and in the Glen of Drumtochty. Estimated cost £1,200 each.

Leicester.—City Council recommended to approve the use and conversion of De Montfort Square for public car parking purposes. Estimated cost £8,000.

Lichfield, Staffs. — C.C. recommended to approve scheme for making-up part of Howdles Lane, Hammerwich. Estimated cost £7,487.

Londonderry. — C.C. are to carry out a scheme for the improvement of a section of the Coleraine-Ballymoney road at the two-mile bridge, for Ministry of Commerce. The scheme involves the straightening of the road at the bridge in order to do away with the present dangerous "S" bend.

Mansfield, Notts.—B.C. recommended to approve scheme for the improvement of Crow Hill, Pleasley Hill. Estimated cost £8,200.

Melton and Belvoir, Leics. — R.D.C. to prepare scheme for the provision of hard standing for about 20 cars on the Bottesford housing estate.

Nelson, Lancs. — B.C. recommended to approve the resurfacing of St. Mary's Street during the next financial year.

Royston, Herts.—C.C. are to prepare, and submit to Ministry for approval, plans for the widening and reconstruction of the railway bridge.

Rushden, Northants.—U.D.C. recommended to apply for sanction to borrow £3,270 for road and sewer works at Kilburn Place site.

Smethwick, Staffs.—B.C. recommended to approve the reconstruction of the channels and kerbs and relaying the footpaths in Halfords Lane from Dartmouth Road to Oxford Road during 1962/63.

Somerset.—M.T. are to grant C.C. £74,850 towards scheme to complete the Bridgwater inner relief road. Total estimated cost £99,800.

Stoke-on-Trent, Staffs. — City Surveyor recommended to approve preliminary plans for making-up Kingston Avenue and Granville Avenue, Sneyd Green and Ivy Grove, Trentham; in principle, scheme for extensions to Carmountside Cemetery.

West Bromwich, Staffs.—B.C. recommended to approve scheme for improvement of Witton Lane. Estimated cost £35,427.

Woolwich.—B.C. recommended to provide an 18ft. service road with a 7ft. footway fronting on to Mottingham Lane. Estimated cost £7,400.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Alfreton, Derbys.—U.D.C. to submit revised sewerage scheme for the Alfreton area to Ministry for approval. Estimated cost £180,000.

Barrhead, Renfrews. — B.C. have been advised to extend the Glasgow Road sewage disposal works. Estimated cost £200,000.

Bexhill-on-Sea, Sussex.—B.C. recommended to approve in principle and prepare detailed plans for submission to Ministry for approval, three-stage surface water drainage scheme for part of Cooden. Estimated cost £43,000.

Brackley, Northants. — C.C. recommended to approve in principle, R.D.C.'s schemes for Byfield sewage disposal works and sewerage and sewage disposal for Farthingstone and Welton. Estimated cost £15,100, £19,000 and £34,600 respectively.

Dagenham, Essex. — B.C. to submit to Ministry for approval in principle, modified scheme for the piping of Wantz Stream northward from Ballards Road to connect with the existing piped sewer in Pondfield Park.

Evesham, Worcs.—R.D.C. recommended to proceed with the Broadway and Childswickham sewerage scheme. Estimated cost £125,000.

Leek, Staffs. — Peak Park Planning Board have approved, subject to conditions, R.D.C.'s proposal for sewage works and pumping station at Longnor.

Londonderry. — R.D.C. to proceed with scheme for the provision of sewerage facilities to serve the proposed 300-house estate at Greenhaw Road, prepare plans for a new sewerage scheme at Racecourse Road, which will serve about 900 houses. Estimated cost £16,500 and £23,000 respectively.

Northampton. — C.C. recommended to approve in principle R.D.C.'s sewerage scheme for Billing (Little Ward). Estimated cost £4,200

Nottingham.—City Council recommended to apply for sanction to borrow £38,000 for the construction of a new culvert for the Tottle Brook, south of Derby Road.

Plymouth, Devon.—City Council recommended to apply for sanction to borrow £2,100 for the construction of a surface water sewer at Church Hill, Eggbuckland.

Shrewsbury, Salop. — B.C. to apply for sanction to borrow £16,000 for the Belvedere drainage scheme.

Tiverton, Devon.—R.D.C. recommended to approve, in principle, scheme for new sewage disposal works at Thorverton. Estimated cost £22,500.

Tonbridge, Kent.—U.D.C. recommended to approve scheme for the piping-in of stream at Reynolds Close. Estimated cost £1,250.

Towcester, Northants.—C.C. recommended to approve in principle R.D.C.'s sewerage scheme for Lichborough. Estimated cost £22,537.

STREET LIGHTING

Bishop's Stortford, Herts.—U.D.C. recommended to include in the 1962/63 programme, scheme for street lighting improvements on district roads. Estimated cost £1,500.

Eastbourne, Sussex.—B.C. recommended to approve 1962-63 street lighting improvement scheme. Estimated cost £6,870.

CONTRACTS

*Full details of the Contracts marked * will be found in our Advertisement Columns.*

BUILDING AND DECORATING

(See also Housing Schemes)

Antrim.—Alterations and additions to Buick Memorial Primary School, Cullybackey, for Co. E.C. Documents from Ferris, Craig and Moore, chartered surveyors, 41 University Road, Belfast, 7. Deposit £5. Tenders by December 18.

Barnstaple, Devon.—External painting of 54 dwellings at Willshere Road, for B.C. Contractors may tender for the whole or part of the contract as follows: (a) Four blocks of four houses 1 to 31 odds; (b) two blocks of four houses, 2 to 40 evens, six pairs of houses; (c) one block of four houses, 33 to 41 odds, 42 to 54 odds and evens, seven pairs of houses. Documents from the Borough Surveyor, The Castle, Barnstaple. Tenders by Dec. 14.

Bebington, Ches.—Erection and completion of a new branch library on land at the junction of New Chester Road and Mill Park Drive, Eastham, for B.C. Documents from the office of the Borough Engineer and Surveyor, Town Hall, Bebington. Deposit £3 3s. Tenders by Dec. 28.

Bedfordshire. — Following for C.C.: (a) Erection of a new divisional police headquarters, Bedford (approximate cost £225,000); (b) erection of a new secondary modern school, Biggleswade (approximate cost £190,000); (c) erection of a new secondary modern school, Dunstable (approximate cost £190,000). Applications to the County Architect, Shire Hall, Bedford, by Dec. 15. Heating engineers and electrical contractors are also invited to submit their names by the above date for consideration to tender for the undermentioned sub-contracts in connection with the above: (a) engineering services; (b) electrical installation.

Belfast.—Construction of a new bedroom and extension to sitting room at Edgcumbe Old People's Home, Holywood Road, for City Council. Documents from City Architect's Department, 40 Academy Street, Belfast, 1. Tenders by December 18.

Belfast.—Erection and completion of church extension to the Church of the Pentecost, Mount Merrion Avenue, Belfast, 6. Documents from George Kernighan, chartered quantity surveyor, 5 University Street, Belfast, 7. Tenders by Dec. 21.

Biddulph, Staffs.—Construction at Tunstall Road, Knypersley, Biddulph, of a public con-

venience, together with incidental works including the reconstruction of a masonry wall, footpaths, drainage, etc., for U.D.C. Documents from the office of the Engineer and Surveyor, Council Offices, Biddulph. Deposit £2 2s. Tenders by Dec. 18.

Birmingham.—Rebuilding of side wall and facing of rear wall of factory premises (work to be carried out in Spring of 1962), at 89-91 Barr Street, Hockley, for City Council. Documents from the City Estates Officer, Bush House, 65 Broad Street, Birmingham, 1. Deposit £2 2s. Tenders by December 14.

***Birmingham.** — Tenants' meeting room, Deelands Road, Rubery, for City Council. Deposit £2 2s. Tenders by Jan. 12.

Bristol.—Erection of a youth centre at Queen's Road, Withywood, approximate floor area 7,400 sq. ft., includes structural reinforced concrete work, for City Education Committee. Applications to the Chief Education Officer, Council House, Bristol, 1, by Dec. 15. Work to start on the site in March, 1962, and be completed by Nov. 1962.

Bromley, Kent.—Replacement of defective sanitary fittings and re-hanging of doors at 181 pre-war houses, for B.C. Applications to Lionel Kaye, town clerk, Municipal Buildings, Bromley. Contractors who have not previously carried out work for the Council should also submit details of similar work undertaken by them, together with the names of two independent persons to whom reference can be made concerning such work. Tenders by Jan. 5.

Carlisle, Cumb. — Erection of Harraby Community and Youth Centre, which is a new single-storey building in traditional construction, area approximately 9,960 sq. ft., for City Council. Documents available from the City Surveyor, 18 Fisher Street, Carlisle, after December 9. Tenders by January 15.

Carlow, Eire.—Erection of a vocational school at Muine-bheag, for the Co. Vocational Education Committee. Plans seen at the office of Charles J. Quinn, architect, 86 O'Connell Street, Limerick, or at the Committee's Office in Carlow. Documents from Dermod J. O'Brien, quantity surveyor, 87 O'Connell Street, Limerick. Deposit £10 10s. cash or cheque. Tenders by December 18.

Chislehurst and Sidcup, Kent.—Erection of sports pavilion and public conveniences, with caretaker's flat—Hoblingwell Wood, St. Paul's Cray, for U.D.C. Applications to Engineer and Surveyor, Manor House, Sidcup. Deposit £2 2s.

Chelmsford, Essex.—New livestock market—Victoria Road, tubular pennage phase 3 development, for B.C. Design and supply of tubular steel cattle pens, stalls, fencing and gates. Documents from the Borough Engineer, Municipal Offices, Coval Lane, Chelmsford. Deposit £2 2s. Tenders by Dec. 21.

Cookstown, Tyrone.—Erection of four shops and office accommodation at Molesworth Street, for Portal Properties, Ltd. Documents from John A. Tynan, quantity surveyor, 33 Malone Road, Belfast, 9. Deposit £5 5s. Plans seen at the offices of Cosgrove, Rooney and M'Conville, architects and civil engineers, 4 Molesworth Street, Cookstown, and 50 Wellington Place, Belfast, 1. Tenders by Dec. 18.

***Corby, Northants.**—Supply and erect 99 precast concrete garages, for U.D.C. Deposit £1. Tenders by January 5.

Cork, Eire.—Erection and completion of an extension to the technical school, Kanturk, for Co. E.C. Documents from E. P. O'Flynn, architect, Trinity Chambers, 60 South Mall, Cork. Deposit £10. Tenders by Dec. 13.

Denbighshire.—Remodelling of Prion (near Denbigh) Controlled School for Co. E.C. Applications to R. A. Macfarlane, county architect, Grove Park, Wrexham, by Dec. 13. Deposit £3 3s.

Derby.—Supply of stores, for the year ending February 28, 1963, for B.C.: Motor spirit, fuel oils, etc.; electric lamps, batteries, etc.; electric cables and accessories. Documents from W. G. Penny, borough engineer and surveyor, Council House, Derby. Tenders by December 15.

Derbyshire.—Supply of traffic signs consisting of approximately 30 advance direction and 90 local direction and miscellaneous signs. Specification is in accordance with British Standard with Scotchlite reflective material. Dexion galvanised angle stiffening, bolts and clips of stainless steel, for C.C. Documents from County Surveyor, County Offices, Matlock. Tenders by January 1.

Dublin, Eire.—Supply and erection of steel trusses and purlins for a proposed two-storey building at St. Brendan's Hospital, for the Health Authority. Documents from Vincent Kelly, architect, 87 Merrion Square, Dublin, or Stanislaus Kenny, structural engineer, 35 St. Stephen's Green, Dublin. Deposit £25 crossed cheque payable to Dublin Health Authority. Tenders by December 21.

Dublin, Eire.—Supply and erection of precast and prestressed concrete framework for a proposed two-storey building at St. Brendan's Hospital, for the Health Authority. Documents from Vincent Kelly, architect, 87 Merrion Square, Dublin or Stanislaus Kenny, structural engineer, 35 St. Stephen's Green, Dublin. Deposit £50 crossed cheque payable to the Dublin Health Authority. Tenders by December 21.

Durham.—Prefabrication and erection of demountable classrooms at the following schools for C.C.: Coundon St. Joseph's R.C. (Aided) School (one); Shotley Bridge County School (one); Trimdon Village County School (two). Applications to the County Architect, South Street, Durham, by Dec. 13.

Durham. — Following for C.C.: Egglestone C.E. (Controlled) New School, erection; Hamsterley County New School, erection; Hebburn Clegwell Modern School, adaptations; Hutton Henry C.E. (Controlled) New School, erection; Lumley Cocken Lane County School, additional accommodation; Marsden County School, extensions; Stanley new branch library, erection; Wolviston County School, adaptations. Applications to County Architect, South Street, Durham, by Dec. 13.

Eastleigh, Hants. — Twenty-four bed-sitting room old people's hostel with communal rooms and warden's flat, Velmore housing estate—stage xii, for B.C. Applications to E. J. Tapley, borough engineer and surveyor, Town Hall, Eastleigh. Deposit £2 2s. Tenders by February 2.

East Sussex.—Erection of a senior hostel at Portslade, for C.C. Apply to the County Architect, County Hall, Lewes, by December 5. Selected contractors will be provided with bills of quantities on December 29.

Essex.—Following for C.C.: (1) North Romford Comprehensive School (stage 3)—a new lower school wing in single- and multi-storey construction and alterations and extensions to existing buildings, estimated cost £198,000. The private architects for this contract are Clifford Culpin and Partners, Doughty Street, London, W.C.1; (2) Southminster County Infants' School (first instalment)—a single-storey building in brick panel wall construction with simple steel beams, estimated cost £20,000. Bills of quantities are expected to be available early January, 1962; (3) Braintree Margaret Tabor County Secondary School (reinstatement of fire damage)—re-building part of school recently damaged by fire. The construction is of wood on a brick foundation, with a ruberoid felt slate roof. Estimated cost of restitution approximately £14,000. Applications for each contract to H. Conolly, county architect, County Hall, Chelmsford, by December 9.

***Eston, Yorks.** — Erection of public convenience at Normanby for U.D.C. Deposit £2 2s. Tenders by Dec. 14.

Kesteven.—The King's School, Grantham, extensions to kitchen, for C.C. Applications to the County Architect, County Offices, Sleaford, Lincs., by Dec. 11. Tenders by Jan. 1.

Lancaster.—Alterations to and pointing of the boundary wall at the Bay View Hospital, Lancester, for Lancester and Kendal Hospital Management Committee. Documents from Superintendent Engineer, Administrative Offices, Ashton Road, Lancaster. Tenders by Dec. 15.

***Llanelly, Carmarthens.** — Construction of outbuildings, for B.C. Deposit £2 2s. Tenders by December 20.

Liverpool.—Construction of new dressing accommodation at Queen's Drive Baths, for City Council. Documents from the Baths Manager and Engineer, 62 Fontenoy Street, Liverpool, 3. Tenders by December 12.

Longbenton, Northumb. — Improvement works to be carried out in 20 aged persons' bungalows, as follows, for U.D.C.: (a) Rydal Terrace, Hazlerigg, four; (b) Dudley Lane, Seaton Burn, four; (c) George's View, Dudley, eight; (d) Clarke's Terrace, Dudley, four. Documents from A. E. Sweetman, engineer and surveyor, Council Offices, Forest Hall, Newcastle upon Tyne, 12. Deposit £2 2s. Tenders by December 20.

Maldon, Essex.—Repair and modernisation of 135 Wantz Road, for B.C. Documents from the Borough Engineer, Municipal Offices, Maldon. Deposit £2 2s. Tenders by Dec. 19.

Manchester.—Supply and fixing of metal roof decking to workshop block and gymnasium at the Central Technical College, for City Council. Documents from the City Architect, P.O. Box 488, Town Hall, Manchester. Tenders by Dec. 13.

Manchester.—Erection of Shackliffe Green Secondary School, Moston, for City Council. Documents from the City Architect, P.O. Box 488, Town Hall, Manchester. Tenders by Jan. 4.

Manchester.—Supply of 100 galvanised mild steel welded circular refuse containers 1¼ cu. yd. capacity, for City Council. Documents from the Director of Public Cleansing, Town Hall, Manchester, 2. Tenders by December 12

Moira, Down.—Erection and completion of a Voluntary Primary School at Lurganville, Moira, for the Very Rev. D. Canon Pollen, P.P. Documents from Houston and Beaumont, 9 Market Street, Lurgan. Deposit £5 5s. Tenders by Jan. 1.

Moira, Down.—Installation of a complete plumbing system at a new school at Lurganville, near Moira. Documents from J. Varmon and S. Mulcahy, 37 Malone Road, Belfast, 9. Deposit £3 3s. Tenders by Jan. 1.

***Newcastle upon Tyne.**—Erection of Charles Trevelyan County Primary School, for E.C.

Northern Ireland.—(One) Building work, (2) mechanical services, (3) electrical services, for provision of annexes to wards 4 and 8B, Whiteabbey Hospital, Newtownabbey, for Northern Ireland Hospital Authority. Documents from A. G. Crawford, quantity surveyor, 12 Donegall Square West, Belfast 1. Deposit £3 3s. Plans seen at offices of Hobart and Heron, architects, Scottish Provident Buildings, Belfast 1. Tenders by January 2.

Northern Ireland.—Supply of heavy fuel oil to new Ulster Hospital, Dundonald, for period January 1, 1962 to March 31, 1963 for Hospitals Authority. Documents from Secretary, Ulster Hospital Management Committee, 36 Whitehall Parade, Belfast, 7. Tenders by December 16.

Northern Ireland.—Insulation of pipes, Grosvenor Road hospital site, Royal Victoria Hospital, for the Northern Ireland Hospitals Authority. Documents from Superintendent Engineer, Area Maintenance Department, Broadway. Tenders by December 12.

Northamptonshire.—Erection of Northgate Special School—Queen's Park Parade, Kingsthorpe, Northampton, for Co. E.C. The works consist of the erection of a complete new single-storey school with a total floor area of about 11,000 sq. ft. of traditional brick construction, together with siteworks, roads, about 1¼ acres of playing fields, fences, etc. In submitting applications for consideration, contractors should state their total labour force and what part of it would be available for this contract. Applications to H. A. Skerrett, chief education officer, Borough Education Office, Springfield, Cliftonville, Northampton, by Dec. 14.

Penybont, Glam.—Repairs to a house at Corntown, Ewenny, for R.D.C. Documents from engineer and surveyor, Council Offices, Greenmeadow, Coity Road, Bridgend Deposit £1 1s. Tenders by December 14.

Peterborough. — Improvements to eight Council houses, Borough Fen, for R.D.C. Documents from Council's Surveyor, 51 Priestgate, Peterborough. Tenders by Jan. 16.

Pewsey, Wilts.—Following, for R.D.C.: (a) From established electrical contractors for re-wiring and installing additional power points at 1-4 Council Houses, Upper Chute; (b) from building contractors for the modernisation of 1-4 Council Houses, Upper Chute. Documents from the engineer and surveyor, Council Offices, Pewsey. Tenders by December 15.

***Poole, Dorset.**—Alterations to girls' school, for B.C. Deposit £2 2s. Tenders by January 24.

Portrush, Antrim.—Erection of bathrooms, etc., at 10 workmen's houses at Crocknamack Street, for U.D.C. Documents from Town Surveyor, Dunluce Street, Portrush. Tenders by Dec. 22.

Portsmouth.—Erection of 152 huts and association store, Long Meadow Allotments, for City Council. Applications to the City Architect, 1 Western Parade, Portsmouth, by Dec. 11. Deposit £1.

Port Talbot, Glam.—Erection of forecourt walls at Fairway, Sandfields, Port Talbot, for B.C. Documents from Borough Engineer, Municipal Buildings, Port Talbot. Deposit £1 1s. Tenders by Jan. 9.

***Prestwich, Lancs.**—External painting of 108 houses at Bent Hill estate for B.C. Deposit £1 1s. Tenders by Dec. 23.

***Prudhoe, Northumb.**—Erection of garages, for U.D.C. Deposit £2 2s. Tenders by January 6.

Rushden, Northants.—Erection of a small public convenience at the cemetery, Newton Road, for U.D.C. Documents from the office of the Engineer and Surveyor, Council Buildings, Rushden. Tenders by Jan. 5.

St. Albans, Herts.—Annual tenders 1962/63, for City Council: (1) Granite aggregate paving slabs; (2) distemper (Walpamur) and ceiling white (Millbrand); (3) shingle for surface dressing; (4) cement, lime and plaster; (5) iron castings; (6) tarmacadam (slag) and cold asphalt; (7) shingle and sand for frost bound roads; (8) coarse, all-in aggregate and sand; (9) kerbs and setts; (10) granite chippings; (11) lubricating oils and greases; (12) protective clothing; (13) road salt for snow clearing; (14) concrete channel blocks and edging; (15) slate chips for surface dressing. Applications to the City Engineer and Surveyor, 16 St. Peter's Street, St. Albans. Tenders by January 3.

Salford, Lancs.—Following for City Transport: (a) Petrol, paraffin, fuel oil, lubricants, white lead, linseed oil, turpentine, terebine, brake linings, rope yarn waste, cotton wipers;

(b) vehicle livery paints. Supplies of the above items to the various departments of the Corporation during the 12 months ending March 31, 1963. Written applications to the General Manager and Engineer, Salford City Transport, Frederick Road, Salford, 6. Tenders by January 3.

Seaham, Dur.—One hundred and thirty-six houses and flats, Northlea estate. Following items in connection with the construction of the above mentioned dwellings, for U.D.C.: Tiling, electrical works, master asphalt flooring, hregrates and boilers, calorifiers. Documents from the Engineer and Surveyor, Cliff House, Seaham. Tenders by December 15.

Staffordshire.—Following for C.C.: Erection and completion of a pair of semi-detached houses with attached sectional police station, out-buildings, and garages, with a concrete raft foundation, load-bearing brick walls, tiled pitched roof to houses and flat felt-covered roof to station, with normal fittings and finishings at High Street, Chasetown, Cannock. Applications to Clerk of the County Council, County Buildings, Stafford, by Dec. 16. Deposit £2 2s. Tenders by Jan. 12.

Thurrock, Essex.—Erection of a village hall on an open site with hard access in the new Corringham Town Centre, for U.D.C. Documents from A. E. Poole, clerk of the council, Council Offices, Whitehall Lane, Grays. Deposit £2 2s. Tenders by December 14.

Watford, Herts.—Repair and decoration of houses on the Corporation's estates for the financial year 1962-63, for B.C. Applications to F. C. Sage, borough engineer and surveyor, Town Hall, Watford by 2 p.m. December 12.

Watford, Herts.—Repair and decoration of houses on estates for the financial year 1962/63, for B.C. Applications to F. C. Sage, borough engineer and surveyor, Town Hall, Watford, by 2 p.m., December 12.

Widnes, Lancs.—Installation of 62 grates on the Hale Road estate for B.C. Documents from Housing Manager, Town Hall, Widnes. Deposit £2 2s. Tenders by Dec. 18.

Waringstown, Down. — Construction and completion of R.U.C. standard sub-station, type V.C., at Waringstown, for Ministry of Finance. Documents, and plans also seen, from Room 103, Law Courts Building, Belfast, and at R.U.C. Police Station, Waringstown. Deposit £2. Tenders by January 1.

Worksop, Notts.—Removal and disposal of existing thermal insulating and weather-proofing materials from the roof slabs of the public library and museum, and their replacement by new materials, for B.C. Documents from the Borough Engineer, Park House, Worksop. Deposit £5 5s. Tenders by December 15.

CLOTHING AND TEXTILES

***Birkenhead, Ches.**—Supply of police clothing, for B.C. Tenders by January 2.

***Blackburn, Lancs.** — Four hundred and forty pairs rubber knee boots for B.C. Tenders by Dec. 21.

Buckinghamshire.—Following clothing, for Water Board: Waterproof clothing; overall protective clothing; uniforms. Applications, in writing, to R. Pownall, engineer and manager, Byron Road, Aylesbury, Bucks.

Chesterfield, Derbys.—Supply of protective and waterproof clothing for cleansing department employees, for B.C. Documents from the Cleansing Superintendent, 103 Sheffield Road, Chesterfield. Tenders by December 31.

DEMOLITION

Falmouth.—Demolition of buildings at the quarry, and levelling of the site, for B.C. Documents from the office of the Borough Surveyor, Municipal Offices, Falmouth. Tenders by December 20.

Hawarden, Flint.—Demolition of 13 houses, shop, bakery and out-buildings, Derby Road, Caergwrle, near Wrexham, for R.D.C. Applications to Architect and Surveyor, Council Offices, Hawarden, Chester, by December 11. Tenders by January 6.

Potters Bar, Middx. — Demolition and clearance of The Hostel, Sherwood Avenue, Potters Bar, for U.D.C. Documents from Engineer and Surveyor, Wyllyotts Manor, Darkes Lane, Potters Bar. Tenders by Dec. 15.

West Riding.—Demolition of training tower at County Fire Service Headquarters, Banney Royd, Huddersfield, for C.C. Documents from the office of the Divisional Architect, Flint Street, Huddersfield. Tenders by Dec. 18.

West Riding. — Demolition of training tower at County Fire Service Headquarters, Banney Royd, Huddersfield, for C.C. Applications to the office of the Divisional Architect, Flint Street, Huddersfield. Tenders by December 18.

ELECTRICAL

***Breconshire.**—Electrical installation at five stream school at Brynmawr, for C.C. Applications by December 15 Deposit £2 2s.

Moira, Down.—Installation of a complete electrical system for a new school at Lurganville, near Moira. Documents from Houston and Beaumont, 9 Market Street, Lurgan. Deposit £3 3s. Tenders by Jan. 1.

Sowerby Bridge, Yorks.—Electrical installation, Westfield House, for U.D.C., including the provision of lighting points and socket outlets. Documents from the Engineer and Surveyor, Beech Royd, Beech Road, Sowerby Bridge. Deposit £2 2s. Tenders by Dec. 15.

FENCING

Chelmsford, Essex.—Supply and erection of approximately 300 lin. yd. of close-boarded fencing and 30 lin. yd. of post and chain fencing to enclose a children's play space at Beechenlea estate, for B.C. Documents from the Borough Engineer and Surveyor, Municipal Offices, Coval Lane, Chelmsford. Deposit £1 1s. Tenders by December 20.

GAS AND WATER SUPPLY

Ampthill, Beds.—Laying of water mains as follows, for R.D.C. Elmwood Crescent, Flitwick 155 lin. yd., Beech Road, Flitwick 150 lin. yd., Harlington Model Village 46 lin. yd. Documents from the Engineer and Surveyor, The Limes, 12 Dunstable Street, Ampthill. Deposit £1 1s. Tenders by Dec. 27.

Armagh.—Following for Lurgan and Moira R.D.C.'s: Lurgan R.D.C. Derrykeevan and District Water Distribution Scheme (part 1) contract 9.—Supply and lay approximately 2,200 lin. yd. of 4in. diameter and 5,300 lin. yd. of 6in. diameter spun iron pipes with Tyton joints together with the provision of meters and other ancillary work in connection with the scheme; Moira R.D.C. Bleary and District Water Distribution Scheme (part 1) contract 7.—Supply and lay approximately 6,200 lin. yd. of 4in. diameter spun iron pipes with Tyton joints together with the provision of meters and other ancillary work in connection with scheme. Documents from G. B. G. Thick, engineer to the Councils, 38 Market Street, Lurgan, Co. Armagh. Deposit £5 5s. each contract. Tenders by December 23.

Bolton, Lancs.—Conversion of two filter basins into filtered water storage tanks, and comprising approximately 5,000 sq. yd. of R.C. roof and supporting columns, for B.C. Documents from Waterworks Engineer's Office, Town Hall, Bolton. Deposit £5. Tenders by January 22.

***Dulverton, Som.**—Dulverton and Brushford water supply for R.D.C. Deposit £5 5s. Tenders by Jan. 4.

***Haverfordwest, Pembs.** — Water supply scheme, for R.D.C. Tenders by January 19.

Larne, Antrim.—Extension of water main from Glenoe to Kilroot, for R.D.C., including the supplying and laying approximately 9,907 lin. yd. of 8in. diameter asbestos cement water main, 800 lin. yd of 8in. diameter cast-iron water main, and 880 lin. yd. of 6in. diameter cast-iron water main, together with the necessary special pipes and fittings and everything required for the proper completion of the works. Documents from T. F. W. Nelson, clerk of council, Prince's Gardens, Larne. Tenders by December 13.

Lurgan, Armagh.—Following water distribution schemes, for Lurgan and Moira R.D.C.s: Lurgan R.D.C.—Derrykeevan and District water distribution scheme (part 1), contract 9—supply and lay approximately 2,200 lin. yd. of 4in. diameter and 5,300 lin. yd. of 6in. diameter spun iron pipes, with Tyton joints, together with the provision of meters and other ancillary work in connection with the scheme. Moira R.D.C.—Bleary and District water distribution scheme (part 1), contract 7—supply and lay approximately 6,200 lin. yd. of 4in. diameter spun iron pipes, with Tyton joints, together with the provision of meters and other ancillary work in connection with the scheme. Documents from Engineer to the Councils, 38 Market Street, Lurgan. Deposit £5 5s. each contract. Tenders by Dec. 23.

Meath, Eire. — Approximately 3,300yd. of 6in. and 3,500yd. of 4in. water mains, all class B, for valves, hydrants specials, etc., for C.C. Documents from County Engineer's Office, County Hall, Navan. Tenders by Dec. 21.

Melford, Suffolk.—Provision and laying of about 2,680yd. of 4in. asbestos-cement water main from Lower Stanstead to Windmill Hill, Long Melford, and about 210yd. of 4in. diameter asbestos-cement water main at Glemsford, approximately 4 miles north of Sudbury, contract 21, for R.D.C. Documents from Elliott and Brown, consulting engineers, Stanley House, Pelham Road, Nottingham. Deposit £4 4s. Tenders by January 5.

Nottingham.—Manufacture, supply, erection and setting to work of two centrifugal pumps and electric motors, switchgear and other appurtenant works at Newstead Booster Station, about 7¼ miles north of Nottingham, for City Council. Documents from B. W. Davies, engineer and general manager, Water Department, Castle Boulevard, Nottingham. Deposit £1 1s. Tenders by January 8.

Omagh, Tyrone.—Supplying and laying of approximately 4,450 lin. yd. of 4in. diameter class C Everite Water Mains at Seskinore, for R.D.C. Documents from O. H. P. Watson, engineer and surveyor, Council Offices, Omagh. Tenders by December 20.

Sligo, Eire. — Ballymote regional water supply scheme, filter plant, for C.C. Supply and installation of a complete water filtration plant having a capacity of 12,300 gallons per hour. Documents from Nicholas O'Dwyer, Son and Partners, consulting engineers, 6 Burlington Road, Dublin, 4. Deposit £10 10s. Tenders by Jan. 11.

South Derbyshire. — Laying approximately 8,000yd. of 9in. spun-iron pipes, Stanton-by-Bridge to Ticknall and Smisby, for Water Board. Documents from Engineer and General Manager, South Derbyshire Water Board, 1 Tenant Street, Derby. Deposit £10 10s. Tenders by Jan. 10.

South Derbyshire.—Supply and delivery of the following pumping plant, for Water Board: Tender A, two submersible pumping units each delivering 175 g.p.m. to an added head of 195ft.; tender B, three horizontal centrifugal pump sets each delivering 320 g.p.m. to an added head of 285ft.; tender C, three horizontal centrifugal pump sets each delivering 140 g.p.m. to an added head of 205ft. Documents from the Engineer and General Manager, South Derbyshire Water Board, 1 Tenant Street, Derby. Tenders by January 8.

HARBOURS, PIERS AND SEA DEFENCE WORKS

***Southampton.** — Dredging for Harbour Board. Deposit £10 10s. Tenders by Jan. 17.

HEATING AND VENTILATING

Cardiff.—Installation of heating and allied services to Gabalfa Special School, North Road, for City Council. Documents from the City Surveyor, City Hall, Cardiff. Deposit £2 2s. Tenders by December 21.

East Riding.—Installation of engineering services to the extensions at Woldgate County Secondary School, Pocklington, for C.C. Applications to the County Architect, County Hall, Beverley. Tenders by Dec. 21.

Moira, Down.—Installation of a complete oil-fired heating system in a new school at Lurganville, near Moira. Documents from J. Varming and S. Mulcahy, 37 Malone Road, Belfast, 9. Deposit £3 3s. Tenders by Jan. 1.

South Cambridgeshire.—Installation of hot and cold water services, provision of bathrooms, including w.c. suites, drainage work and incidental work to 10 houses, Fowlmere Road, Thriplow, for R.D.C. Documents from the Council's Architect and Surveyor, County Hall, Hobson Street, Cambridge. Deposit £2 2s. cheques payable to Council. Tenders by December 19.

HOUSING SCHEMES

Antrim.—One hundred and thirteen houses and two shops at Mossley, for R.D.C., together with roads, paths, drainage and other ancillary works. Documents from the offices of McCarthy and Lilburn, quantity suveyors, 43 Scottish Provident Buildings, Belfast, 1, or The Council Offices, "The Steeple," Antrim. Deposit £5 5s. Tenders by Jan. 1.

Ballycastle, Antrim. — Four pairs semi-detached bungalows and a block of five garages, together with incidental works, at Knocknacarry, Cushendun, for R.D.C. Documents from T. J. Sheehan, clerk of the Council, Rural Council Offices, Ballycastle. Deposit £3 3s. Tenders by Dec. 12.

Barnstaple, Devon.—Following works as separate contracts at Combe Martin, for R.D.C.: (a) Three one-bedroom bungalows at Highfield Gardens, together with certain site works; (b) improvement works to 1-12 Park Crescent. Documents from C. D. Squire, housing manager, Council Offices, The Red House, Castle Street, Barnstaple. Deposit £2 2s. for (a). Tenders by January 9.

Clutton, Som.—Twenty-six dwellings at Lippiatt Lane site, Timsbury, for R.D.C., including eight traditional type single-bedroom bungalows, 10 two-bedroom bungalows, eight three-bedroom houses and 21 garages, together with the construction of sewers, roadworks and site clearance in accordance with plans and specifications which may be inspected during office hours at the Council Offices, Temple Cloud, near Bristol. Applications to Thomas and Morgan and Partners, architects, 73 Gelliwastad Road, Pontypridd, Glam. Deposit £3 3s. Tenders by Dec. 21.

***Cumbernauld, Dumbartons.** — Multi-storey block of 64 flats, for Development Corporation. Apply by December 29.

***Filey, Yorks.**—Muston Road estate—phase vi Development, for U.D.C. Deposit £1 1s. Tenders by December 29.

***Frimley and Camberley, Surrey.**—Seventy-two maisonnettes for U.D.C. Apply by Dec. 22.

Glamorgan. — Caewern estate, Neath, two pairs of senior officers houses, for C.C. Documents from the Neath Police Station and at the County Police Architect's Department, County Police Headquarters, Bridgend. Deposit £2 2s. Tenders by Dec. 18.

Glasgow.—Six hundred and thirty houses in four-storey maisonnettes and four-storey flats in traditional construction at Wynford, Maryhill, Glasgow, second development for Scottish Special Housing Association, Ltd. Applications to the Secretary, Scottish Special Housing Association, Ltd., 15-21 Palmerston Place, Edinburgh, 12.

Ipswich, Suffolk.—Houses and flats in three contracts as follows, for B.C.: 54 houses of various types; 44 houses of various types; 18 flats in three blocks of six flats. Applications to Borough Engineer and Surveyor, 19 Tower Street, Ipswich, by December 14. Deposit £3 3s. each. Tenders by January 30.

Neath, Glam.—Forty-four type K houses, Cimla 3 housing site, for B.C. Documents from the Borough Engineer at the Gwyn Hall, Neath. Deposit £3 3s. Tenders by January 13.

Newcastle-under-Lyme, Staffs. — Thirty-six dwellings and 17 lock-up garages, plus roads and sewer work, at High Street, Halmerend, for R.D.C. Documents from F. W. Ramm, Clerk of tthe Council, Council Offices, Sidmouth Avenue, The Brampton, Newcastle, Staffs. Deposit £4 4s. Tenders by Dec. 18.

Newcastle upon Tyne.—Sixty-four maisonnettes in four four-storey blocks in the Scotswood redevelopment area, for City Council. Application, in writing, to the City Architect, 18 Cloth Market, Newcastle upon Tyne, 1, where conditions of contract may be seen. Tenders by December 20.

Northern Ireland. — Eighty-two dwellings and 11 garages, together with ancillary and engineering works at Londonderry (Bligh's Lane Dev. 1), for Housing Trust. Documents from the Offices of the Trust, 12 Hope Street, Belfast, 12. Deposit £3. Tenders by Dec. 19.

***Paddington.** — Eight dwellings for B.C. Apply by Dec. 21.

Ploughley, Oxon.—Eleven pairs of houses and ancillary works at Arncott, for R.D.C. Documents from the Engineeer and Surveyor, Council Offices, Waverley House, Bicester, Oxon. Deposit £2. Tenders by Dec. 20.

Plymouth.—Following for City Council: (a) The erection of 32 flats at Henderson Place, Ford, Plymouth; (b) the erection of eight flats and six garages at Cecil Street, Stonehouse, Plymouth. Applications to the City Architect, Seymour Road, Plymouth, by December 8. Deposit £3 3s. each.

***Port Talbot, Glam.**—Traditional housing programme, for B.C. Deposit £2 2s. Tenders by January 16.

Ramsey, Hunts.—Six houses and 12 self-contained flats on the School Lane site and 46 houses on the Station Road site, for U.D.C. Applications to Pick, Everard, Keay and Gimson, architects, 6 Millstone Lane, Leicester. Deposit £3 3s. each, cheques payable to U.D.C. Tenders by December 18.

Stockport, Ches.—Following for B.C.: Erection of (a) eight aged persons flats at Liverpool Street, Reddish; (b) Twelve aged persons dwellings at Dialstone Lane, Stockport; (c) fourteen aged persons flats and four aged persons bungalows at Frodsham Avenue, Heaton Moor; (d) Great Moor Clinic, store Street, Great Moor—brick construction, single-storey flat roof. (2) Final carpeting of Lowndes Lane. Laying of approximately 210 tons ¾in. thick bituminous carpet by machine and completion of a small area of footpath in flagging and concrete. Applications for (1) to Borough Architect, Town Hall, Stockport. Documents for (2) from Borough Surveyor, Room 76 Town Hall, Stockport. Tenders by January 4, for (1) (a), (b) and (c), January 8, for (1) (d) and December 18, for (2).

Wellingborough, Northants. — Old people's accommodation at Henshaw Road in two separate contracts as follows, for U.D.C.: Group 1—A two-storey block of 29 flatlets, warden's accommodation, common room and ancillary buildings. Group 2—Two blocks of four two-storey one-bedroom flats; two blocks of four two-storey bed/sitting room flats; and four pairs of old people's bungalows. Documents from the Council Offices, Swanspool, Wellingborough. Deposit £5 5s. Tenders by Jan. 1. Suppliers and sub-contractors interested in quoting for steel balustrading, ironmongery, electrical installation, sanitary fittings and steel windows should send their names to W. G. Palmer, clerk of the council, Council Offices, Swanspool, Wellingborough.

West Lancashire. — Seventy-two one-bedroomed bungalows and other ancillary works, on nine sites as defined in the following schedule for R.D.C. Waddicar Lane, Melling four; Southport Road, Lydiate, six; Chapel Road, Hesketh Bank, six; Hoole Lane, Banks, six; Hillock Lane, Scarisbrick, six; Church Road, Bickerstaffe, eight; Oriel Drive, Aintree, 10; Edge Lane, Thornton, 12; Old Hall Road, Maghull, Grosvenor Road, Maghull, 14. Documents from the Engineer and Surveyor to the Council, 52 Derby Street, Ormskirk. Deposit £10 10s. Tenders by December 21.

Widnes, Lancs.—Two blocks of four by one-bedroom bungalows at Crow Wood Lane, for B.C. Documents from Borough Architect, Brendan House, Widnes. Deposit £10 10s., cheques payable to the corporation. Tenders by Dec. 29.

Wrexham, Denbigh.—Twelve flats (three blocks) at Acton Park estate, for B.C. Applications to the Borough Surveyor, Guildhall, Wrexham. Deposit £2 2s. Tenders by January 8.

MATERIALS AND SUPPLIES

***Banstead, Surrey.**—Annual tenders, 1962/63, for U.D.C. Tenders by January 8.

Battersea.—Supply of precast concrete flags for one year from April 1, 1962, for B.C. Documents obtained at the Town Hall, Lavender Hill, S.W.11, or by sending The Borough Engineer and Surveyor a stamped addressed envelope under cover, endorsed "Tender Form." Tenders by January 12.

Belper, Derbys.—Supply and delivery of the following materials for the year ending March 31, 1963, for U.D.C.: Slag chippings; tarred limestone; cold asphalt; clean broken limestone; gravel; refined tar; precast slabs, kerbs and edgings; pre-coated chippings (slag/granite). Documents from the Surveyor, Council Offices, King Street, Belper. Tenders by Jan. 1.

***Birkenhead, Ches.**—Supply of materials, for B.C. Tenders by January 8.

Buckinghamshire.—Supply of the following chemicals, for Water Board: Hydrated lime; quicklime; pure dried vacuum salt; chlorine; copperas. Applications in writing to R. Pownall, engineer and manager, Byron Road, Aylesbury, Bucks.

Carshalton, Surrey.—Following for the period of 12 months commencing April 1, 1962, for U.D.C.: (A.T. 1)—Tarmacadam; (A.T. 2)—bitumen macadam; (A.T. 3)— bitumen macadam (gravel); (A.T. 4)—cold asphalt; (A.T. 5)—bituminous emulsion; (A.T. 6)—ballast and sand; (A.T. 7)—artificial stone paving; (A.T. 8)—precast concrete kerb; (A.T. 9)—reconstructed granite kerb; (A.T. 10)—heating and planing of carriageways; (A.T. 11)—supply and lay cold asphalt; (A.T. 12)—supply and lay hot asphalt; (A.T. 13)—gulley and soakaway cleaning; (A.T. 14)—surface dressing of carriageways; (A.T. 15)—surface dressing of footways; (A.T. 16)—miscellaneous highway works. Documents from the Engineer and Surveyor, Council Offices, Stone Court, The Grove, Carshalton. Tenders by December 18.

Chelmsford, Essex.—Supply of approximately 12,600 cu. yd. of bacteria bed media complying with B.S. 1938/1948, for B.C. Written applications to the Surveyor to the Council, Municipal Offices, Coval Lane, Chelmsford. Tenders by December 21.

***Dorset.** — Supply books, etc., for C.C. Tenders by Jan. 20.

***Dover.**—Supply of materials, for B.C. Tenders by January 1.

***Durham.**—Supply of engineering equipment for C.C. Tenders by Dec. 22.

***Enfield, Middx.**—Supply of road materials for B.C. Tenders by Jan. 8.

Enfield, Middx.—Supply of the following items for the year ending March 31, 1963, for B.C.: (a) Tarred macadam; (b) cold asphalt, bitumen macadam and tack coat; (c) concrete aggregate, washed sand, pit sand, shingle; (d) cement; (e) dustbins, cisterns and tanks; (f) paints, oils, paint brushes; (g) brooms and brushes; (h) precast concrete paving slabs; (i) manhole covers, gully grids, kerb overflows; (k) tools; (l) granite kerb; (m) red granite chippings; (n) bitumen for surface dressing; (o) precoated chippings. Applications to the Borough Engineer and Surveyor, 7 Little Park Gardens, Enfield, accompanied by s.a.e. Tenders by January 8.

***Esher, Surrey.**—Supply road materials for U.D.C. Tenders by Dec. 29.

***Hertfordshire.**—Supply of materials, for C.C. Tenders by January 8.

Ilford, Essex.—Supply of the following for a period of 12 months ending March 31, 1963, for B.C.: (1) Precast concrete kerb, quadrants and edging; (2) tarmacadam; (3) portland and high alumina cement; (4) blue lias lime and plaster; (5) concrete aggregates and building sands; (6) coal and coke; (7) electric cable; (8) paints; (9) brooms and brushes; (10) engineer's sundries and tools; (11) iron nails, screws, etc.; (12) drysaltery, soaps and sundries; (13) bitumen macadam; (14) street nameplates and traffic signs; (15) window cleaning; (16) g.l.s. electric lamps; (17) uniforms and protective clothing; (18) petrol, derv, furnace oil, etc. Documents from the Borough Engineer and Surveyor, Town Hall, Ilford. Tenders by January 1.

***Ilkeston, Derbys.**—Supply of road materials for B.C. Tenders by Jan. 5.

***Leigh, Lancs.**—Supply of road materials for B.C. Tenders by Jan. 5.

***Manchester.**—Supply of high-tensile fabric reinforcement, for Corporation Water Works. Tenders by January 3.

***Reigate, Surrey.**—Supply contracts, for B.C. Tenders by December 29.

Rhondda, Glam.—Following for B.C.: (1) Stoneware pipes; (2) bricks; (3) artificial paving and kerb; (4) Portland cement; (5) street brushes; (6) sand; (7) tarspraying; (8) paint, paint oils, etc.; (9) bib and brace overalls and jackets and boiler suits; (10) ironmongery, rainwater goods, wallboards, tools, sundries; (11) tarred macadam; (12) granite chippings. All the above except (7) are for the period of one year ending March 31, 1963; (7) is for the period between April and August 1962. Applications to the Borough Engineer and Surveyor, Municipal Offices, Pentre, Rhondda. Tenders by January 15.

Somerset,—Congresbury flood prevention scheme, for River Board. Supply of approximately 5,000 tons of hardcore and 1,500 tons of top soil. Documents from the Somerset River Board, Divisional Engineer's Office, Stonewell Lane, Congresbury, Bristol, Somerset. Tenders by Dec. 15.

***Thurrock, Essex.** — Annual contracts, for U.D.C. Tenders by December 30.

***Willesden, Middx.**—Annual contracts, for B.C. Tenders by January 8.

Wolverhampton, Staffs.—Supply of the following items for the financial year ending March 31, 1963, for B.C.: (1) Iron castings for gully gratings, manhole covers, etc.; (2) tarmacadam; (3) bitumen macadam; (4) asphalt—B.S. 594; (5) cold asphalt; (6) mastic asphalt; (7) natural rock asphalt (reinstatements); (8) bituminous compounds; (9) concrete flags; (10) concrete kerbs; (11) gravel aggregates; (12) stoneware pipes; (13) bricks (hard common, brindled and engineering bricks); (14) portland cement; (15) sand; (16) cleft chestnut fencing; (17) ready mixed concrete; (18) surface dressing (footways and carriageways). Applications to the Borough Engineer, Town Hall, Wolverhampton. Tenders by January 8.

PLANT AND MECHANICAL TRANSPORT

Boston, Lincs.—Supply of a Bedford lacre sweeper-collector, for B.C. Documents from the Borough Surveyor, Municipal Buildings, Boston. Tenders by December 12.

Bournemouth, Hants.—Supply of four 2-ton and four 3-ton tipping lorries, eight 2/3-ton Bedford lorries to be taken in part exchange, for B.C. Documents from the Borough Engineer, Town Hall, Bournemouth. Tenders by January 4.

***Bristol.**—Supply of portable rotary drilling machine, for City Council. Tenders by December 15.

Castlereagh, Down.—Supply of a brush-type road-sweeping vehicle, for R.D.C. Documents from the Council Offices, 368 Cragagh Road, Belfast, 6. Tenders by January 2.

***Cornwall.** — Supply of plant for C.C. Tenders by Dec. 20.

***Hemel Hempstead, Herts.**—Refuse collection vehicle, for R.D.C.

Lewisham.—Supply of the following, for B.C.: (a) One refuse vehicle, equipped for emptying 1¼ cu. yd. containers; (b) one mechanical shovel. In each case offers are invited for taking used vehicles and plant in part exchange. Documents from the Borough Engineer, Lewisham Town Hall, Catford, S.E.6. Tenders by December 19.

***Manchester.**—Supply loading shovel for Corporation Water Works. Tenders by January 3.

Perthshire. — Supply of the following for C.C. (a) One five-ton tipping truck with diesel engine, on long or short wheeel base and fitted with hand-operated two-ton winch; and (b) one three-ton tipping truck with diesel engine, on short wheel base and fitted with hand-operated 2-ton winch. Documents from the County Water and Drainage Engineer, 3 South Street, Perth. Tenders by Dec. 15.

***Poulton-le-Fylde, Lancs.**—Supply of tractor and trailer, for U.D.C. Tenders by January 2.

South Devon. — Supply of the following motor vehicles, for Water Board: One 5cwt. Morris light van, series III; two 35cwt. Bedford dropside (Hawson) trucks; the undermentioned vehicles are to be taken in part-exchange: 30cwt. Morris lorry, YTA 127, first registered March, 1958; 30cwt. Morris lorry, YTA 224, first registered April, 1958; 6cwt. Standard van, 606 DUO, first registered Jan., 1960. The vehicles to be taken in part-exchange may be inspected between the hours of 8 a.m. and 12 noon on Dec. 9, at Pindar Stores, The Quay, Kingsbridge. Documents from F. Brown, clerk of the board, Churston House, Kingsbridge, Devon. Tenders by Dec. 13.

PLAYING FIELDS, PARKS, ETC.

Darlaston, Staffs.—Construction of two football pitches on Bentley estate, for U.D.C. Documents from the Engineer and Surveyor, Victoria Park, Darlaston. Deposit £2 2s. Tenders by January 8.

Lancashire.—Supply of playing fields equipment, for Co. E.C. Documents from the Chief Education Officer, Playing Fields Service, P.O. Box 61, County Hall, Preston. Tenders by December 18.

Lindsey. — Construction of approximately 8½ acres of playing field at Queen Mary Avenue, Cleethorpes, for C.C. Documents from County Architect, County Offices, Lincoln. Tenders by December 29.

Swansea.—Layout of grounds at Trallwn County Primary School, for B.C., including surface stripping, filling, levelling, tilthing and seeding with subsoil drainage and other contingent works over an area of approximately 25,200 sq. yd. Documents from J. Owen Parry, Lewis and Partners, consulting civil engineers, Arcade Chambers, Amanford, South Wales. Deposit £5 5s. Tenders by Dec. 29.

ROADS, BRIDGES AND SITE WORKS

Antrim.—Following works during the year ending March 31, 1963, for C.C.: (a) Resurfacing and surface spraying on classified and unclassified roads; (b) repairs to sea pavements. Applications to the County Surveyor's Office, County Courthouse, Crumlin Road, Belfast, 14. Tenders by Dec. 18.

Argyllshire. — London - Glasgow - Inverness trunk road (A.82), Carnoch-Kinlochleven section. Reconstruction of approximately one mile of the above road, for C.C. Applications to the County Engineer, County Engineer's Office, Loch-gilphead, by Dec. 15.

Bedwellty, Mon.—Construction of new footpath at Duffryn Terrace, New Tredegar, for U.D.C., including approximately 90 lin. yd. of footway, consisting of reinforced concrete slabs supported on brick piers, and ancilliary work. Documents from the Engineer and Surveyor, Municipal Offices, Aberbargoed, Bargoed, Glam. Deposit £2 2s. Tenders by December 18.

***Brierley Hill, Staffs.**—Sheffield Street development—completion works, for U.D.C. Deposit £3 3s. Tenders by December 30.

***Bromley, Kent.**—Construction of car park —Elmfield Road, for B.C. Tenders by December. 30.

***Bushey, Herts.**—Making up of link road and completion of bridge over River Colne, for U.D.C. Deposit £2 2s. Tenders by January 4.

***Cambridgeshire.** — London-Norwich trunk road, A.11, contract C. 6117, for C.C. Tenders by December 18.

Cardiff.—Construction of garage bases at the following sites for R.D.C.: (a) St. Andrews (Dinas Powis) — concrete bases for seven garages; (2) Wenvoe—concrete bases for three garages together with a tarmacadam approach area. Documents from the office of S. P. Youldon, engineer and surveyor, 20 Park Place, Cardiff. Deposit £3 3s. Tenders by Dec. 12.

***Caterham and Warlingham, Surrey.**—Extension of car park, Clareville Road, for U.D.C. Deposit £2 2s. Tenders by Jan. 2.

***Caterham and Warlingham, Surrey.**— Widening of Crewes Lane, Warlingham, for U.D.C. Tenders by Jan. 2.

***Cheshire.**—Road improvement at White Barn Hotel, Cuddington, A.49, for C.C. Deposit £5 5s. Tenders by January 1.

Cosford, Suffolk.—Construction of roadworks at the housing estates at Edwardstone and Great Green, Cockfield, for R.D.C. The contacts consist in the following: Mill Green, Edwardstone—22 lin. yd. kerbing, 590 sq. yd. carriageway, 380 sq. yd. footpaths, together with surface water drainage and certain ancillary works; Great Green, Cockfield—255 lin. yd. kerbing, 2,060 sq. yd. carriageway; 710 sq. yd. footpaths, together with surface water drainage and certain ancillary works. Documents from the Council Offices, 32 High Street, Hadleigh, or at the office of the County Surveyor to the West Suffolk County Council, Manor House, Bury St. Edmunds. Tenders by December 20.

***Droitwich, Worcs.**—Union Lane improvement, for B.C. Apply by December 11 Deposit £2 2s.

***Esom and Ewell, Surrey.**—Road works, for B.C. Deposit £2 2s. Tenders by December 20.

Esher, Surrey.—New road improvement, West Molesey, contract 327, for U.D.C., comprising the reconstruction and widening of approximately 300 lin. yd. of the existing carriageway, including kerbing, channelling, surfacing in bitumen macadam, surface water drainage, the construction of tarmacadam footpaths and grass verges together with various ancillary works. Documents from the Engineer and Surveyor's Department, Council Offices, Esher. Deposit £1 1s. Tenders by December 27.

Exeter.—Marsh Barton industrial site, contract 11, sewers and roadworks, for City Council, comprising the laying of approximately 464yd. of 9in. and 12in. soil and surface water sewers, 3,050 sq. yd. of stone and bituminous macadam carriageway, 924 sq. yd. of footway and ancillary works. Documents from John Brierley, city engineer and surveyor, Municipal Offices, 7 Southernhay West, Exeter. Deposit £2 2s. Tenders by December 15.

Faversham, Kent. — Secondary siteworks— Upper Brents—phase 1, for B.C., comprising approximately 850 sq. yd. of in-situ granolithic paving; 90 sq. yd. of concrete carriageway and 480 sq. yd. of grass forecourt, together with incidental works. Documents from the Borough Engineer and Surveyor, Municipal Offices, Faversham. Tenders by December 18.

Flintshire.—Construction of two bus laybys, each approximately 60yd. in length, the sites being approximately three miles apart, for C.C. The main works consist of laying 9in. reinforced concrete rafts, kerbing, footpath construction, hedging and fencing Documents from the County Surveyor, Llwynegrin, Mold. Tenders by December 27.

Glasgow.—Carbrain six (housing) development site preparation contract, for Cumbernauld Development Corporation. Contract includes approximately 9,000 sq. yd. of carriage way and 1,600 lin. yd. of 4in.-15in. diameter foul sewers and 2,500 lin. yd of 4in.-30in. diameter surface water sewers, together with ancillary works. Names to the Chief Architect and Planning Officer, Cumbernauld House, Cumbernauld, Glasgow, by December 8.

***Gloucestershire.**—Private street works in Billbrook Road for C.C. Deposit £2 2s. Tenders by Jan. 2.

***Gloucestershire.**—Improvements (a) and (b) —Exeter-Leeds trunk road A.38, for C.C. Deposit £10 each. Tenders by January 2.

Guildford, Surrey.—Following for R.D.C.: (1) Westonfields, Church Lane, Albury— 1,600 sq. yd. concrete carriageway, 265yd. of 6in. soil sewer, 470yd. of 12in., 9in. and 6in. s.w.s. sewers with appurtenant manholes, 750 sq. yd. of concrete garage bases and forecourts; (2) Northcote Crescent, West Horsley, 1,000 sq. yd. of tarmacadam footpaths and ancillary works. Documents from J. W. Snape, engineer and surveyor, Millmead House, Guildford Deposit £2 2s. each, payable to R.D.C. Tenders by January 8.

Hampshire. — Repair, maintenance and improvement individually not exceeding £5,000 in value, to be carried out during the year ending 31 March, 1963, to County roads and bridges and paved areas ancillary to other establishments, for C.C. The works comprise: (1) Earthworks, drainage (including small bridges and culverts), carriageway and footpath construction, painting, sundry jobbing works; (2) fencing and gates; (3) site clearance and tree felling; (4) site clearance and earthworks. Applications to the County Surveyor, The Castle, Winchester, by December 29.

***Hertfordshire.**—Private street works at Oxhey, for C.C. Tenders by January 3.

***High Wycombe, Bucks.**—Making-up Gomm Road for B.C. Deposit £2 2s. Tenders by Dec. 19.

Hucknall, Notts. — Reconstruction of the junction of Spring Street (C.3214) and Annesley Road (A.611), for U.D.C. The works consist of kerbing, tarmacadam footpaths, and reconstruction of part of the carriageway, including macadam surfacing, together with ancillary drainage and other works. Documents from the Engineer and Surveyor, Council Offices, Watnall Road, Hucknall. Deposit £2 2s. Tenders by January 8.

Ilford, Essex.—Maintenance of 6.500 lin. yd. of joints in concrete roads, 1961/62, involving the cutting out, priming and resealing of joints and cracks, by machine, for B.C. Documents from the Borough Engineer, Town Hall, Ilford. Deposit £2 2s. Tenders by December 19.

Inverness.—Surfacing with bitumen macadam of approximately 1,050 sq. yd. of internal footpaths at Dalneigh, for B.C. Documents from the Burgh Surveyor, Town House, Inverness. Tenders by Dec. 14.

Kincardineshire. — Cove Bay housing development, for C.C., including construction of about 345yd. of roads and footpaths, with incidental earth works; about 890yd. of sewers of various diameters, including a short sea outfall; about 400yd. of 4in. spun-iron water main; and relative works. Documents from the office of Crouch and Hogg, engineers, 18 Woodside Crescent, Glasgow C.3. Deposit £3 3s. Tenders by December 28.

Lancashire. — Construction and completion of roadworks in Birchwood Avenue, Hutton, in the Rural District of Preston for C.C. Plans on view at 9 Fishergate Hill, Preston. Documents from County Surveyor and Bridgemaster, P.O. Box 9, Preston. Deposit £2. cheques payable to C.C. Tenders by December 15.

Lancashire.—Construction and completion of roadworks in Langdale Road (part of) and St. Michael's Close (part of), Livesey, in the Rural District of Blackburn, for C.C. Plans, etc., on view at 9 Fishergate Hill, Preston. Documents from County Surveyor and Bridgemaster, P.O. Box 9, Preston. Deposit £2 cheques payable to C.C. Tenders by December 15.

Lancashire. — Construction and completion of roadworks in Brooklands Road, Eccleston, in the Rural District of Whiston, for C.C. Plans, etc., on view at 9 Fishergate Hill, Preston. Documents from County Surveyor and Bridgemaster, P.O. Box 9, Preston. Deposit £2. cheques payable to C.C. Tenders by December 15.

Lancashire. — Construction and completion of road works in Hatlex Hill, Hest Bank, in the Rural District of Lancaster, for C.C. Plans, etc., on view at 9 Fishergate Hill, Preston. Documents from County Surveyor and Bridgemaster, P.O. Box 9, Preston. Deposit £2. cheques payable to C.C. Tenders by December 15.

Leicester.—Marsden Lane, improvement, for City Council. The work includes construction of a brick-faced mass concrete wall (approximately 70 cu. yd.), approximately 500 sq. yd. of lean mix concrete with bituminous surfacing for road widening, approximately 300 sq. yd. flagged footway, and other ancillary works. Documents from John L. Beckett, city surveyor, Town Hall, Leicester. Deposit £1 1s. Tenders by December 20.

***Leicestershire.** — Road reconstruction and new roadworks at airfield, for C.C. Tenders by December 22.

***Leicestershire.**—Road widening and reconstruction at "The Narrows", Lutterworth, for C.C. Deposit £5. Tenders by December 22.

***Maidenhead, Berks.** — King Street reconstruction, section 1, for B.C. Deposit £2. Tenders by Jan. 1.

Maidstone, Kent.—Park Wood clearance area—section 3, felling and grubbing approximately 18 acres of Chestnut woodland at Park Wood, for B.C. Documents from the Borough Engineer, Palace Avenue, Maidstone. Tenders by December 18.

Malton, Yorks.—Surfacing an estate road at Cherry Avenue, Swinton, for R.D.C., consisting of approximately 350 super. yd. of tarmacadam surfacing. Documents from A. H. and B. D. Greenhaigh, chartered architects, 57 Market Place, Malton. Tenders by December 15.

Morecambe and Heysham, Lancs.—Improvement at the municipal caravan site—Westgate, for B.C., including the laying of sewers and construction of roads. Documents from the Office of the Borough Engineer and Surveyor, Council Offices, Morecambe and Heysham. Deposit £2. Tenders by December 19.

Northfleet, Kent.—Following for U.D.C.: Private street works—construction of streets totalling some 2.500 sq. yd. of carriageway (hardcore and macadam or alternatively concrete) with concrete footpaths and surface water drainage; sewers—laying of some 2,700 lin. yd. of 9in. diameter and 4in. diameter sewers with house drain connections. Documents from the Engineer and Surveyor, Town Hall, Northfleet. Deposit £2 2s. Tenders by Dec. 20.

Poole, Dorset.—Following for B.C.: Reconstruction of parts of Lagland Street, South Road and Green Road and Skinner Street extension, comprising approximately 5,000 sq. yd. of carriageway with ancillary works of kerbing, footways, minor surface water drainage works and the constuction of two small car parks. Documents from Borough Engineer, Municipal Buildings, Poole. Tenders by December 12.

Ryde, I. of W.—Minor improvement— Eddington Road (B.3330) for B.C. Works comprise approximately 735 lin. yd. of concrete haunch, 283 lin. yd. of 9in. and 6in. diameter surface water sewer and laying approximately 700 tons of bituminous macadam, and other incidental works. Documents from Borough Surveyor, 5 Lind Street, Ryde. Deposit £3 3s. Tenders by December 18.

Southampton. — Contract S.134—Bursledon Road-Hinkler Road. Construction of a short section of dual carriageway at this junction, for B.C., including providing 600 lin. yd. concrete kerb, channel, and 1,200 sq. yd. of reinforced concrete carriageway base and appropriate appurtenant works. Applications to the Borough Engineer and Surveyor, Civic Centre, Southampton, by December 18.

Sunderland, Dur.—Site preparation works, comprising approximately 2,000 sq. yd. of 6in. and 8in. reinforced concrete road and ancillary drainage works, for B.C. Documents from Borough Engineer, Athenaeum Buildings, 27 Fawcett Street, Sunderland. Deposit £2 2s. Tenders by December 18.

Sunderland, Dur.—Site preparation works, comprising approximately 3,200 sq. yd. of 6in. reinforced concrete carriageway and ancillary

drainage works, for B.C. Documents from Borough Engineer, Athenaeum Buildings, 27 Fawcett Street, Sunderland. Deposit £2 2s. Tenders by December 18.

Surrey.—Resurfacing Ewell By-pass (A.24/A.240) with ¾in. fine cold asphalt (approximately ¾ mile) and with 1½in. thick hot rolled asphalt (approximately ¼ mile) and ancillary works, for C.C. Documents from County Engineer, County Hall, Kingston-upon-Thames. Tenders by December 16.

Torquay, Devon.—Making-up and repairing certain drives, etc., to various hospitals in the area, for District Hospital Management Committee. Documents from the Superintendent Engineer, 62/64 East Street, Newton Abbot. Tenders by December 13.

***Tottenham, Middx.** — Reconstruction of Willoughby Lane, for B.C. Deposit £2. Tenders by December 20.

***Tynemouth.**—Preston cemetery extension—Roads and sewers, for B.C. Deposit £2 2s. Tenders by January 8.

Ventnor, I. of W.—Reconstruction of part of Park Avenue and Zig Zag Road, Ventnor, for U.D.C. Documents from Engineer and Surveyor, Salisbury Gardens, Ventnor, I. of W. Tenders by December 30.

Walsall, Staffs.—Construction of an ash access way for garages rear of Thames Road, Dee Road, Green Rock housing estate, approximately 1,500 sq. yd. in area, for B.C. Documents from M. E. Habershon, borough engineer and surveyor, Council House, Walsall. Deposit £2 2s. Tenders by January 1.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Bridge-Blean, Kent.—Blean sewerage—contract 2, Giles Lane and Cutballs Farm and Amery Court extensions, for R.D.C.. Work and materials required in the construction of approximately 1,600yd. of 6in. sewers, house connections thereto and conversions, 4in. rising main, one ejector station and other works incidental thereto. Documents from A. P. I. Cotterell and Son, engineers, 54 Victoria Street, Westminster, London, S.W.1 Deposit £3 3s. Plans also seen at the Council Offices, Old Dover Road, Canterbury. Tenders by January 8.

***Bromley, Kent.**—Surface water sewer, for B.C. Tenders by January 8.

Bullingdon, Oxon. — Dorchester-on-Thames sewage disposal scheme, for R.D.C., comprising the construction of a sewage disposal works to serve a population of approximately 2,250. Applications to J. E. Busfield, engineer and surveyor. L. C. Wort, clerk to the Council, 76 Banbury Road, Oxford, by Dec. 15.

Cavan, Eire. — Kilnaleck sewerage scheme for C.C., comprising the laying of approximately: 1,328 lin. yd. of 6in. sewer; 660 lin. yd. of 9in. sewer; 95 lin. yd. of 12in. sewer; 177 lin. yd. of 4in. rising main; including all necessary manholes and ventilating columns and the construction of an ejector station and disposal works consisting of preliminary units, Imhoff tank, dosing chamber, filters, humus tank, sludge drying beds and ancillary works. Documents from Edward G. Pettit, 7 South Mall, Cork. Deposit £15. Tenders by Jan. 11.

Cookstown, Tyrone.—Cookstown Sewage Disposal Works, stage II, for Cookstown Rural and Urban District Councils' Joint Committee, comprising: Reinforced concrete storm water and settling tanks, sludge digestion tanks and drying beds, humus tanks, pump house, percolating filters, and ancillary fencing, drainage works, terracing and roadworks. Documents from R. Ferguson and S. McIlveen, consulting engineers, 15 College Gardens, Belfast, 9; or A. Montgomery, secretary, Town Hall, Burn Road, Cookstown. Deposit £5 5s Tenders by December 29.

Cork, Eire.—Execution of the works comprised in the Owvane catchment drainage scheme, Co. Cork, for Office of Public Works. Documents from the Secretary, 51 St. Stephen's Green, Dublin. Deposit £5. Tenders by Feb. 1.

Derwent, Yorks.—Elvington sewerage and sewarge disposal, for R.D.C., comprising the laying of approximately 1,350yd. of 6in. and 9in. sewers with manholes and house connections, the construction of a pumping station and the laying of approximately 1,100yd. of 4in. and 6in. diameter a.c. pumping main. Documents from Fairbank and Son, consulting engineers, 29 St. Mary's, Bootham, York. Deposit £3 3s., cheque payable to Council. Tenders by Dec. 19.

***Desborough, Northants.**—Sewerage works, for U.D.C. Deposit £3 3s. Tenders by January 10.

Esher, Surrey.—Construction of approximately 320 lin. yd. of 9in. diameter salt-glazed ware foul sewer, together with precast concrete manholes, and incidental works ot rear of properties, Birds Hill Drive, Oxshott, contract 322, for U.D.C. Documents from the Engineer and Surveyor's Department, Council Offices, Esher. Deposit £1 1s. Tenders by December 27.

Exeter.—Countess Wear sewage works extension—contract 2—steel sheet piling, etc., for City Council, comprising the driving of approximately 46,000 sq. ft. of steel sheet piles, the laying of approximately 640 lin. yd. of 54in. nominal diameter steel tubes, approximately 640 lin. yd. of 4in. diameter c.i. water main, and ancillary works. Documents from John Brierley, city engineer and surveyor, Municipal Offices, 7 Southernhay West, Exeter. Deposit £2 2s. Tenders by January 2.

***Finchley.** — Reconstruction of surface-water sewer, Vivian Way, N.2, for B.C. Deposit £2. Tenders by January 1.

Gateshead, Dur.—Laying of a sewer at Brighton Road, for B.C., consisting of the laying of approximately 120 lin. yd. of 15in. to 21in. diameter concrete pipes at depths averaging 7ft. together with appropriate manholes. Documents from the Borough Surveyor, Municipal Buildings, Swinburne Street, Gateshead 8. Deposit £2, cheque payable to Borough Treasurer. Tenders by December 15.

Hertford, Herts.—Construction of venturi-flume at sewage disposal works, Mead Lane, for B.C., including a reinforced concrete flume and channel 42in. wide and about 81ft. long, together with 42in. diameter, reinforced concrete pipe connection to an existing sewer, for installation of a recording instrument, and various ancillary work. Applications by letter to W. A. Weeks, borough engineer and surveyor, The Castle, Hertford, by December 11, and include details of experience in this type of construction, and the names of the Authorities for whom such work has been carried out.

Hiraethog, Denbighs.—Following for R.D.C.: Contract 1: Capel Garmon Village, comprising of one circular filter, 19ft. 6in. diameter, sludge beds, humus tank and other incidental works; contract 2: Mountain View, Capel Garmon, construction of septic tank and filter and laying approximately 145yd. 6in. diameter sewer and other incidental works. Documents from John Roberts, clerk of the Council, Council Offices, Avondale, Llanrwst. Deposit £2 2s. Tenders by December 19.

Keynsham, Som.—Provision and installation of two sewage pumps each rated 180 gallons per minute, and two electric motors, together with associated equipment, for the conversion of an existing sewerage ejector station into a pumping station, at Norman Road housing estate, Saltford, for U.D.C. The works also include the removal of the existing two ejectors, each rated at 25 gallons per minute, together with the existing electric motors and air compressors, and other associated equipment, and offers are invited for the purchase of this equipment. Documents from the Engineer and Surveyor, Council Offices, Keynsham, Bristol. Deposit £2 2s. Tenders by Dec. 13.

Lancaster, Lancs.—Sewerage scheme, 1961, for City Council. Contract 1—Parkfield Drive to Stodday. This includes the construction of 3,000 lin. yd. of 30in. to 42in. dia. concrete pipe sewers and 1,300 lin. yd. of 12in to 27in. concrete pipe sewers, together with manholes and other ancillary works. The contract also entails laying a 36in. dia. concrete pipe sewer across a canal, including provision of cofferdams. Contract 2—Barton Road and Durham Avenue. This includes the construction of 550 lin yd. of 12in. and 15in. concrete pipe sewers, together with manholes and ancillary works. Documents from the City Engineer, Town Hall, Lancaster. Deposit £2, per contract. Tenders by Dec. 18.

Larne, Antrim.—Following, for R.D.C.: (1) Woodburn sewerage scheme—supplying and laying approximately 562 lin. yd. of 12in. diameter glazed E.W. sewer pipe, 366 lin. yd. 9in. diameter glazed E.W. sewer pipe, and 1,392 lin. yd. of 6in. diameter glazed E.W. sewer pipe, together with manholes; (2) Milebush sewerage scheme—supplying and laying approximately 891 lin. yd. of 6in. diameter glazed E.W. sewer pipe, together with manholes. Documents from Prince's Gardens, Larne. Tenders by December 13.

North Lonsdale, Lancs.—Provision of sludge drying beds at Cartmel High Newton and Lindale Sewage Disposal Works, for R.D.C., comprising approximately: (a) 100 cu. yd. excavation; (b) 200 super. yd. 9in. engineering brickwork; (c) 54 cu. yd. concrete. Documents from office of H. Whittaker, surveyor, Todbusk, Springfield Road, Ulverston. Tenders by December 12.

Oxford.—Construction of a foul relief sewer in North Oxford, for City Council, including the following: (a) 1,679 lin. yd. of 12in., 15in., 18in. and 24in. diameter concrete pipe sewer; (b) 133 lin. yd. of 15in. diameter spun iron pipe sewer; (c) 208 lin. yd. of 9in. diameter glazed stoneware pipe sewer; (d) 27 precast concrete manholes; (e) 13 brick manholes. Documents from the City Engineer, Town Hall, Oxford. Tenders by January 4.

***Ploughley, Oxon.**—Hethe sewerage and sewage disposal scheme, for R.D.C. Deposit £2. Tenders by December 28.

***Plymouth.**—Supply of pipes and manholes, for City Council. Tenders by December 21

***Ramsgate, Kent.** — Reconstruction of Harbour Parade sewer, for B.C. Deposit £2 2s. Tenders by December 22.

***Stocksbridge, Yorks.** — Sewerage and sewage disposal works extensions, contract 2, for U.D.C. Deposit £15 15s. Tenders by January 31.

***Thornbury, Glos.**—Almondsbury drainage contract 8, for R.D.C. Deposit £5. Tenders by January 15.

Torquay, Devon.—Construction of four septic tanks (normal P.C.C. manhole construction), approximate depth 12ft. 6in., together with short lengths of 4in. diameter and 6in. diameter S.G.S. pipe sewers, at Oddicombe Beach, for B.C. Documents from the office of the Borough Engineer, Town Hall, Torquay. Deposit £2 2s. Tenders by December 18.

Whiston, Lancs.—Clock Face Road, Bold, 30in. diameter surface water sewer, for R.D.C., including the provision and laying of approximately 70yd. of precast concrete pipe sewer, together with appurtenant works. Documents from the Office of the Engineer and Surveyor, Council Offices, Whitston, Prescot. Tenders by December 20.

STREET LIGHTING

Beddington and Wallington, Surrey.—Supply and erection of 326 group B Stanton concrete columns and brackets, with Revo lanterns, 60-W sodium lamps and control gear, for B.C. Documents from the Borough Engineer, Town Hall, Wallington. Tenders by Dec. 15.

Braintree and Bocking, Essex.—Street lighting—group B, stage IV, for U.D.C.: (1) Taking delivery and erection of 81 group B, prestressed concrete columns; (2) supply, erection and wiring up of 78 45/60 watt sodium lanterns; (3) supply, erection and wiring up of four fluorescent lanterns; (4) the laying of cable ducts across carriageways; (5) removal of existing installations and incidental works. Documents from the office of the Engineer, Town Hall, Braintree. Deposit £2 2s. Tenders by December 29.

Buntingford, Herts. — Supply and erection of 18 concrete or steel columns, complete with 140-W sodium lanterns and lamps, on trunk road, A.10, for Parish Council. Documents from A. P. Westover, clerk, Sandon Lane, Buntingford. Deposit £2. Tenders by Jan. 1.

Leeds.—Street lighting equipment, for City Council: Contract 3 (parts A and B), provision of lighting at roundabout (trunk); contract 4 (parts A and B), lighting of trunk road, Part of Wetherby Road (trunk road A.58), and its junction with ring road Seacroft and ring road Shadwell (trunk A.6120). Tenders are invited for the supply and delivery of the undermentioned equipment: Contract 3A, supply and delivery of 11 reinforced concrete lighting columns and brackets to give mounting height of 35ft.; contract 3B, supply and delivery of 11 cut-off sodium discharge lanterns suitable for 200-W integral sodium lamps, complete with lamps and auxillary gear within canopy; contract 4A, supply and delivery of 26 reinforced concrete lighting columns and brackets to give mounting height of 25ft.; contract 4B, supply and delivery of 26 non-cut-off sodium discharge lanterns suitable for 140-W sodium lamps complete with auxiliary gear within canopy. Documents from the City Lighting Engineer, City Lighting Department, Springwell Street, Leeds, 12. Tenders by December 15.

Mynyddislwyn, Mon.—Provision of group A street lighting on approximately one and a half (1½) miles of class II road, Plough Inn, Penmaen Road to Penmaen, for U.D.C. Lighting will be of the sodium type. Providing and laying of underground cable, works in connection therewith, erection of columns and supply of lanterns uplift brackets, etc., and installation complete. (Columns will be supplied by the Council). Documents from the Engineer and Surveyor, Council Offices, Pontllanfraith, Blackwood, Mon. Deposit £2 2s. Tenders by December 19.

Pontypool, Mon. — Provision, installation and bringing into service of some 450 200-W sodium street lighting units, including for lamps, lanterns, tubular steel columns, control gear and fittings, and for the provision and laying of some 25,000 lin. yd. of underground cable connection, including for reinstatement, for U.D.C. Documents from the Engineer and Surveyor, Municipal Offices, Pontypool. Deposit £5 5s. Tenders by Dec. 28.

INTERNATIONAL CONTRACTS

***Hong Kong.**—Plover Cove and Hebe Haven water scheme, for Hong Kong Government. Deposit £25. Tenders by February 16.

***Malta.** — Naval base installations for Admiralty.

AWARDS

BUILDING AND DECORATING

(See also Housing Schemes)

Barnet, Herts.—Erection of a nurses' hostel at the Barnet General Hospital, for the North West Metropolitan Regional Hospital Board—C. Miskin and Sons, Ltd., Romeland, St. Albans, estimated cost £37,000. F. A. C. Maunder, regional architect, Young and Brown, quantity surveyors, Roman House, Wood Street, London, E.C.2, and Clark, Nicholls and Marcel, structural engineers, 21 Westbourne Grove, London, W.2. Work commenced.

Barrow-in-Furness, Lancs.—Bedlift and toilets for female chronic sick wards at Roose Hospital, for Manchester Regional Hospital Board—H. Dawson, Lightburne Park Works, Dragley Beck, Ulverston, £9,127 (recommended subject to Ministry approval).

Basildon, Essex. — Erection of a factory at No.1 industrial area, for Perfect Flavour Ice Cream Co., Ltd.—Thomas Bates and Son, Ltd.. The Old Brickworks, Harold Wood, Romford, Essex. Estimated cost £56,500. Work commenced.

Extension to factory at Pavcooke Road, for W. and E. Moore, Ltd.—Thomas Bates and Son, Ltd. Estimated cost £17,580. Work commenced.

Bishop's Waltham, Hants.—Construction of a road depot, comprising offices, garages and stores, for C.C.—Direct Labour (recommended). Estimated cost £12,500.

Blyth, Northumb.—Construction of a three-storey office block for the yardmaster's and Staiths superintendents staff, for British Railways (North Eastern Region)—H. and R. Wylie, Ltd., Morpeth.

Bodon, Dur.—Erection of 36 brick garages on Council housing estate, for U.D.C. J. T. Edmondson, engineer and surveyor—R. H. Cooper, 28 Myrella Crescent, Sunderland. £3,601.

Bolton, Lancs.—Extension to X-ray department at Royal Infirmary, for Manchester Regional Hospital Board—G. H. Pearce and Son, Ltd., Darley Street, Bolton, £17,292 (recommended, subject to Ministry approval).

Bristol.—Erection of an office block and canteen at Avonmouth for British Oil and Cake Mills—A. Monk and Co., Ltd., Padgate, Warrington. Estimated cost £20,000. Work commencing shortly.

Bromley, Kent.—Retiling of roof at 32 Upper Park Road, for B.C.—Roberts Adlard and Co., Ltd., Bromley, £532.

Buckhaven and Methill, Fifes. — Following trades in connection with 38 houses at Auld Toll Bar site, for B.C.: Fencing work—G. Henderson, Windygates, £826; painter work—Stevenson and Horsburgh, 42 Shore Street, Anstruther, £1,483; electrical work—Joseph Wilson, 23 St. Clair Street, Kirkcaldy, £1,486; plaster work—Frank Walker, Elgin Street, Kirkcaldy, £4,321; excavator, concrete and brickwork—Frank Walker, Elgin Street, Kirkcaldy, £27,460; plumber work—James C. Rollo, 9 College Street, Buckhaven, £5,943; roof tiler and roughcast work—J. Robertson and Sons, 21 Campbell Street, Dunfermline, £4,425; carpenter and joiner work—Wm. Deas and Son, Beulah, Rising Sun Road, Buckhaven, £15,903; glazier work—Reid and McCutcheon, 227 Strathmore Avenue, Dundee, £216.

Burnley, Lancs.—Erection of a motor vehicle workshop, repair, washing and petrol sales area at Trafalgar, for Holden and Hartley Ltd. Peter H. Nuttall, architect, Westwood Chambers, 5 Kay Street, Rawtenstall, Rossendale—H. Trickett and Son, Ltd., Alexandra Mill, Crawshawbooth, Rossendale, £55,000. Bulk excavation completed

Carshalton, Surrey.—Erection of a messroom/plant store at Fellows Road Depot, for U.D.C. F. J. Kennedy, engineer and surveyor — Anglo-Scottish Construction, Co., Ltd., 112a Coombe Lane, Raynes Park, London, S.W.20, £9,410.

Castlereagh, Down.—External painting of following for R.D.C.: (a) Sixty-two houses at Downshire Park East; (b) 23 lock-up garages at Downshire Parade—Stephens and Partridge, 15 Llewellyn Avenue, Lisburn, £1,188 (accepted); W. J. Robinson and Co., £1,343; A. Blackstock, £1,430; H. and N. McCaw, £1,449; T. Kirkpatrick and Sons, £1,775; McBurney and Cowan, £1,832; H. Graham, £2,066; S. Ferguson, £2,199; Martin and Fox, £2,337; J. Garvey and Co., Ltd., £2,422.

Catterick, Yorks. — Construction of new quarters for Senior N.C.Os. at R.A.F. Station, Catterick, for the Air Ministry—F. Shepherd and Son, Ltd., Blue Bridge Lane, York. Estimated cost £65,000.

Chertsey, Surrey.—Repairs and redecorations at 9 Station Road and 14 Guildford Road, for C.C.—A. Cox and Son, Redhill, £562 (recommended).

Crosby, Lancs.—Erection of a special school, for Co.E.C.—W. J. Simms, Sons and Cooke, Ltd., 396 Wilmslow Road, Manchester, 20, £73,835.

Cumberland.—Second instalments of new Hensingham Junior School and Distington Infants' School, for C.C. D. W. Dickenson, county architect—Border Engineering Contractors, Ltd., Queen Street, Whitehaven.

Dagenham, Essex.—Following for B.C.: Provision of wood block flooring (Muhuhu) and thermoplastic floor tiling at Marks Gate County Junior School—S. Bennett and Son, Ltd., Tyne Hall, Hainault Street, Ilford, £538 and London Bridge Flooring Co., Ltd., 37 Snows Fields, London, S.E.1, £886 respectively; supply and fixing of laboratory furniture at Dagenham County High School—Mann Egerton, Ltd., 14 Berkeley Street, London, W.1, £2,494 (recommended).

Darlington, Dur.—Erection of offices at the abattoir for the B.C. E. A. Tornbohm, borough architect—Direct Labour, £8,000.

Dorking, Surrey.—Repairs and redecorations at 1 and 2 Hampstead Lane and 277 High Street, for C.C.—E. H. Cummins and Co., Ltd., Station Road, Dorking, £607 (recommended).

Dudley, Worcs.—External painting of 502 dwellings, contracts one and two, at Russells Hall estate, during 1962, for B.C.—Direct Labour (recommended).

Ealing, Middx.—Following for B.C.: Alterations to the building at the rear of the Town Hall annexe and the provision of a covered passageway between the Town Hall and the annexe—Roger Miller and Co., Ltd., 12 Pownall Gardens, Hounslow, £4,886 (recommended).

Erection of 34 garages at Elm Tree Close—Bell and Webster, Ltd., Essex Road, Hoddesdon, Herts., £6,672 (recommended, subject to Ministry approval).

Eccles, Lancs.—Erection of factory in Weymouth Road, for Antonelli Bros.—Blakeley (Sheffield), Ltd., Bridge Works, Hope, Via Sheffield. Estimated cost £3,000.

Egham, Surrey.—Repairs and redecorations, etc., at the police station on No.3 quarters, for C.C.—A. Cox and Sons, Redhill, £750 (recommended).

Epping, Essex.—Erection of the Epping Motel, Epping High Street, for Watney Lyon Motels, Ltd. Erdi and Rabson, architects, 14-15 Queenhithe, London, E.C.4—Charles S. Foster and Sons, Ltd., High Beech Road, Loughton, Essex.

Glamorgan. — Conversion of St. Donat's College, in the Vale of Glamorgan into an Atlantic College, stage I—E. Turner and Sons, Ltd., Penarth Road, Cardiff. Sir Percy Thomas and Son, architects, 10 Cathedral Road, Cardiff and W. T. Hills and Co., quantity surveyors, 3 Castle Street, Cardiff.

Godalming, Surrey.—Erection of twenty-five garages at Binscombe Farm estate, for B.C.—Langham Cement Products, Ltd., Godalming, £2,325 (recommended).

Halifax, Yorks.—Erection of 19 concrete garages at Denfield Avenue, for B.C.—E. and T. Bower, Ltd., Rookery Lane, Halifax.

Harrogate, Yorks. — Erection of research laboratories and offices at Beckwith Knowle for The Associated Chemical Companies, Ltd.—Walter G. Birch (Harrogate), Ltd., Montpellier House, Harrogate, Yorkshire.—A. V. Montague, architect, Yorkshire Bank Chambers James Street, Harrogate; and Miller and Thomas, 13 Queen Square, Leeds, 2, are the quantity surveyors.

Heston and Isleworth, Middx.—Following for B.C.: Erection of garage, workshop and stores at the Plant Nursery and depot adjacent to Lampton Park—S. T. Mace, Ltd., 142A Bath Road Hounslow, £8,026; provision of wash-hand basins in 38 houses on the Great West Road estate and 37 on the Worton Road estate I—L. E. Whitehouse, 21 Towfield Court, Hanworth, Feltham, £1,155 (recommended, subject to Ministry approval).

High Wycombe, Bucks.—Following for B.C.: Supply and erection of 24 garages at Hicks Farm and four Batley garages at Tyzack Road—T. R. Cooper, Ltd., £4,900 and £590 respectively; two garages at Clarendon Road—P. McNamara, Totteridge Lane, Totteridge, High Wycombe, £396 (recommended, subject to Ministry approval).

Hutton, Essex.—Erection of a public house, The Hangman's Rest, at Hanging Hill Lane—Thomas Bates and Son, Ltd., The Old Brickworks, Harold Wood, Romford, Essex. Estimated cost £27,100. Work commenced.

Knaphill, Surrey.—Repairs and redecorations at 1, 3 and 5 Oak Tree Road and police office for C.C.—R. Smith, Guildford, £544 (recommended).

Leeds.—Erection of wholesale warehouse and offices in Westgate, for the Yorkshire Factoring Co., Ltd. Ward, Ruddick and Ward, architects, The Purev Cust Chambers, York.—P. Kiernan and Co., Ltd., Poplar Grove Wetherby Road, Leeds, 17.

Liverpool. — Rebuilding of premises at corner of Lord Street and Whitechapel, for Great Universal Stores, Ltd. North and Partners, architects, 40 Broadway, Maidenhead, Berks.—Higgs and Hill, London, S.W.1.

Longbenton, Northumb. — Alterations for offices, showrooms and warehouse, for Thomas Hill and Co.—Charles Tennet, Ltd., Church Road, Stockton-on-Tees.

Luton, Beds.—Improvements to 32 houses at Dordans Road and Linden Road, for B.C.—Direct Labour (subject to Ministry approval). Estimated cost £21,040.

Macclesfield, Ches.—Outdoor staff canteen at West Park Hospital, for Manchester Regional Hospital Board—Jacksons (Edgefold), Ltd., Plodder Lane, Farnworth, Lancs., £4,416 (recommended, subject to Ministry approval).

Manchester.—Superstructure for erection of eight-storey block of offices at junction of York Street and Mosley Street, for Williams Deacon's Bank, Ltd. Harry S. Fairhurst and Son, architects, Chancery Chambers, 55 Brown Street, Manchester, 2—Leonard Fairclough, Ltd., 3 Chapel Street, Adlington, Lancs. (extension of contract).

Manchester. — Improvements to casualty department, pharmacy and first floor wards at Victoria Memorial Jewish Hospital, for Manchester Regional Hospital Board—John Dickinson and Co., Ltd., Fairclough Street, Bolton, £67,995 (recommended, subject to Ministry approval).

Mansfield, Notts.—Erection of five garages at Bonington Road, four at Ladybrook Place and tenants meeting room at Bull Farm housing estate, for B.C.—Direct Labour (recommended, subject to Ministry approval). Estimated cost £807, £672 and £11,350 respectively.

Margate, Kent.—Extension of factory at Westwood industrial estate, for Rovex Scale Models, Ltd.—Grummant Bros., Ltd., 100 Grange Road, Ramsgate. Work has commenced.

Market Bosworth, Leics. — Extensions to council offices for R.D.C.—H. Beck and Sons (Market Bosworth), Ltd., Market Bosworth. Estimated cost £31,000.

Middleton, Lancs.—Phases 1 and 2 of the construction of Queen Elizabeth's Grammar School, for Co.E.C.—Gilbert-Ash, Ltd., 2 Stanhope Gate, London, W.1, £292,500.

Middleton, Lancs.—Construction of shops and a flat at Wood Street, for the Shop and Store Developments, Ltd. Samuel Jackson and Son, architects, Ocean Chambers, Piccadilly, Bradford—Shepherd Taylor, Ltd., Littleborough. Estimated cost £40,000.

Morecambe, Lancs.—Erection of a new stand at Christie Park, for the Morecambe Football Club, Ltd.—Sanders and Forster, Ltd., Warton Road, London, E.15 and A. Robinson and Sons (Morecambe), Ltd., West End Road, Morecambe. Estimated cost £18,000. Work to commence April 30.

Nelson, Lancs.—Provision of conveniences and repair and painting of the stands at Seedhill Football Field, for B.C.—Direct Labour (recommended). Estimated cost £790 and £900 respectively.

Newbury, Berks. — Reinstatement of damage caused by fire at 70 Camp Close, for B.C.—F. D. Carter and Partners, Ltd., Inkpen, £1,355 (recommended).

Newcastle upon Tyne.—Alterations and additions to shop premises at Newgate Street, for Bairds Carpets, Ltd. S. J. Stephenson, Gillis and Partners, architects, Saville Chambers, Newcastle upon Tyne—William Jackson, Audley Road, South Gosforth, Northumb.

Additions to Firfield Secondary Boys' School for E.C. George Kenyon, city architect—building work—Graham and Son, Westcroft Road, Forest Hall, Newcastle, £11,400; heating installation — Cairns (Newcastle), Ltd., 23 Picton Place, Newcastle, £498; electrical work—Devereux Moodie and Co., Ltd., Blenheim Street, Newcastle, £524.

North Shields, Northumb. — Extensions to drapery stores in Wellington Street, for Bell Brothers. William Stockdale, architect, 73 Howard Street, North Shields—Hastie D. Burton, Ltd., King Street, North Shields. Site works started.

Ormskirk, Lancs.—Erection of the Ormskirk Grammar School and first phase of Ormskirk Secondary School for Co.E.C.—Gilbert Ash, Ltd., 2 Stanhope Gate, London, W.1, £107,000 and £93,000 respectively.

Oxford.—Alterations to premises of the West Oxford Community Centre, for City Council—G. H. Hutt, 41 High Street, New Headington, Oxford, £2,500 (recommended).

Oxted, Surrey.—External and partial internal repairs and redecorations, etc., at the police station and 11 police houses, for C.C.—R. H. Stepney, Coulsdon, £2,440 (recommended).

Paddington. — Repairs, improvements and painting works at Kensal Road Baths, for B.C.—A. J. Harrold and Co., Ltd., 182 Kensington Church Street, London, W.8, £2,690 (recommended).

Plymouth, Devon. — Following for City Council: Renewing asphalt roofing at the education offices, Cobourg Street—Val de Travers Asphalte Paving Co., Ltd., 229 High Street, Exeter, £834; conversion of ground floor of Glanville Street building at Plymouth and Devonport Technical College, into electrical laboratories, etc.—A. N. Coles (Contractors), Ltd., Sutton Road, Plymouth, £65,680; provision of two additional classrooms at Laira Green Secondary School and extensions and improvements to pavilion at Astor playing field—Humphrey's, Ltd., Market Road, Plympton, £2,296 and £1,274 respectively (recommended).

Poplar.—Repair and protective treatment to reinforced concrete balconies at Brine House, Edgar House, Hammond House and Providence House, for B.C.—Quickset Water Sealers, Ltd., 20 Albert Embankment, London, S.E.1, £16,637 (recommended).

Erection of a public convenience at Sutherland Road, for B.C.—Combined Contractors (London), Ltd., Wellington Works, Voluntary Place, London, E.11, £12,523 (recommended); Borough Engineer and Surveyor's Dept., £12,730; J. Murphy and Sons, Ltd., £13,109; J. A. Proctor, Ltd., £13,240; A. E. Symes, Ltd., £13,749; Falkus Bros., Ltd., £13,997; Yates (Bow), Ltd., £14,179; Griggs and Son, Ltd., £15,149; The Demolition and Construction Co., Ltd., £15,975.

Portsmouth.—Alterations and additions to George Street Junior Mixed and Infant School, and Copnor Modern School for Girls, for E.C.—A. E. Porter and Son, Ltd., 57 Church Street, Portsmouth, £19,908.

Ripley, Surrey.—Repairs and redecorations, etc., at 1, 2 and 3 living quarters at the police station, for C.C.—R. Smith, Guildford, £674 (recommended).

Rushden, Northants.—Internal decoration of 64 houses for U.D.C.—Rushden Co-operative Society, Ltd., High Street, Rushden, £795.

Salford, Lancs.—Piling work for new maternity unit at Hope Hospital, for Manchester Regional Hospital Board—G.K.N. (Reinforcement), Ltd., Alma Street, Smethwick, £11,351 (recommended, subject to Ministry approval).

Salford, Lancs.—Rebuilding of the Queen's Arms Hotel, adjoining Regent Road, for Threfall's Brewery Co., Ltd., Ormrod and Partners, architects, 49 Rodney Street, Liverpool, 1—W. Fearnley (Salford), Ltd., Constance Works, Eccles New Road, Manchester, 5.

Sawbridgeworth, Herts. — Improvements to council houses at 1-20 Small Gains, for U.D.C. Tooley and Foster, architects, Midland Bank Chambers, Buckhurst Hill Essex — J. L. Glasscock's Successors (Bishop's Stortford), Ltd., The Causeway, Bishop's Stortford, £14,754 (accepted); R. F. and R. W. Veal, Ltd., £15,448; I. Elliott, Ltd., £15,792; H. J. Moss (Sawbridgeworth), Ltd., £16,495.

Sheffield.—Cladding of the major buildings at steelworks now under construction at Tinsley Park, for the English Steel Corporation—Robertson Thain, Ltd., 12 Collegiate Crescent, Sheffield, 10, £400,000.

Shoreditch.—Erection of 38 garages on various estates, for B.C.—Tersons, Ltd., 4 Dollis Park, London, N.3, £15,090 (recommended, in lieu of previously accepted tender).

Rebuilding of the urinal at Rosemary Branch Bridge, for B.C.—S. C. Grover, Grange Works, Clinton Road, London, E.7, £1,326 (recommended).

Skelmersdale, Lancs.—Provision of sanitary and cloakroom accommodation at the C. of E. school, Church Road, for the Co.E.C.—Bilow Contractors, Ltd., 18a Millgate, Wigan, £2,747.

Smethwick, Staffs.—Internal alterations and decorations at the Law Courts, for B.C.—Direct Labour, £1,092 and £416 respectively (recommended).

Southend-on-Sea, Essex.—Extension of Belfairs Cafe and the conversion into a wash room of a dressing room in the main pavilion of Belfairs Sports Ground, at Belfairs Park, for B.C.—Wilkin Building Co Ltd., Leigh-on-Sea, £3,260 (recommended).

Stoke-on-Trent, Staffs. — Following for City Council: Improvements at Fenton police station—Albert Hughes, Ltd., Stoke-on-Trent, £1,080; insulation of the ceiling and supporting beams in power house at Strongford sewage works—Newalls Insulation Co., Ltd., Manchester, £1,058 (recommended).

Swansea.—Construction of a servicing and maintenance depot at Landore, for British Railways (Western Region)—Kyle, Stewart (Contractors), Ltd., Ardshiel House, Wembley Park, Middx., £450,000.

Thurrock, Essex.—Erection of a swimming pool and public hall at King George's Fields, Blackshotts, for U.D.C.—Thomas Bates and Son, Ltd., The Old Brickworks, Harold Wood, Romford, Essex, £501,990. Work about to commence.

Wandsworth.—Stages 2 and 3 of a three-storey, precast concrete office and factory block at Merton Road, S.W.16, for Benham and Sons, Ltd.—Modular Concrete Co., Ltd. (Construction Division), 1258-1260 London Road, London, S.W.16, £28,690. Main contractors: W. J. Mitchell and Son, Ltd.

Watford, Herts. — Repairs to the forecourt walls on Leavesden Green estate, for B.C.—J. Tarpy and Son, 31 Church Street, Enfield, Middx., £7,729 (recommended).

West Bromwich, Staffs.—Provision of additional cloakroom facilities at Hill Top Girls' School and modifications to the art room at George Salter Girls' School, for B.C.—Direct Labour, £1,526 and £600 respectively (recommended).

West Hartlepool, Dur. — First stage of new College of Further Education in Stockton Street, for E.C.—Crudens, Ltd., Olive Bank, Musselburgh, £750,000.

Weybridge, Surrey.—Repairs and redecorations at 24 and 26 Princes Road, for C.C.—A. S. Ashcroft, Ltd., 64 Cottimore Lane, Walton-on-Thames, £581 (recommended).

Winchester, Hants.—Erection of a 90-bedroom hotel, Cathedral Close, for Trust Houses, Ltd.—James Drewitt and Son, Ltd., Ringwood Road, West Howe, Bournemouth. Estimated cost £350,000. Fielden and Mawson, architects, 71a The Close, Norwich; Phillip Pank and Partners, quantity surveyors, 15 Lower Close, Norwich, and Frederick Snow and Partners, consulting engineers, 7 Thorpe Road, Norwich.

Worsley, Lancs.—Erection of the Hulton Secondary School, for Co.E.C.—Spooners (Hull), Ltd., Glebe Road, Stoneferry, Hull, £160,516.

Zetland.—Extension of Anderson Educational Institute, for C.C.—Several works: R. Pert and Sons, Ltd., Lower Balmain Street, Montrose, £239,487; heating—J. T. L. Parkinson, Ltd., 457 Union Street, Aberdeen, £17,773. George K. Barr, county architect. E. M. Kean and Partners, surveyor, 3 Walker Street, Edinburgh, 3. Jas. B. Wallace, engineer, 53 Cochrane Street, Glasgow, C.1.

DEMOLITION

Accrington, Lancs.—Demolition of disused C. of E. chapel at the crematorium, for B.C.—Pilot Constructors Supply Co., Sharp Hall, Church, £320 (recommended).

Carmarthen.—Demolition of three huts now used as living accommodation at Lon-y-prior, St. Clears, for R.D.C.—G. A. Meade and Co., 4 Three Houses, Sion Street, Radcliffe, Lancs., £26. Work to commence Dec. 11.

Plymouth, Devon.—Domolition of municipal offices and buildings at rear of Guildhall and the Catholic Apostolic Church and 20, 22 and 23 Princess Street, for City Council—Direct Labour (recommended, subject to Ministry approval). Estimated cost £2,964 and £1,975 respectively.

Smethwick, Staffs.—Completion of demolition work on redevelopment sites 3 and 4, for B.C.—Anthony Lynch and Son, 47 Iver Road, Birmingham, 11, £570, and Richards and Wallington (Plant Hire), Ltd., 221 Gazette Buildings, Corporation Street, Birmingham, 4. £550, respectively.

Stoke-on-Trent, Staffs. — Demolition of the following for City Council: 15 houses at Mayne Street, Hanford, contract 264—G. Baskerville, Martin Street, Cobridge, Stoke-on-Trent, £135; former Methodist youth centre premises at Avondale Street, Longport—Potteries Demolition Co., Ltd., 143 Etruria Road, Stoke-on-Trent, £89.

Coronation works and adjoining property at Commerce Street, Longton—R. Sutton, Goldenhill, Stoke-on-Trent, £340; certain farm buildings at Berry Hill Farm—G. Baskerville, £118 (recommended).

Tipton, Staffs.—Demolition of club premises at junction of Canal Street and Union Street, for B.C.—H. E. Humphries, 87a Ocker Hill Road, Ocker Hill, Tipton, £325 (recommended).

Wood Green, Middx.—Demolition of 72 and 77-87 Acacia Road, for B.C.—Knifton Transport, Ltd., Langhedge Lane, London, N.18, £106 (recommended).

Woolwich. — Demolition of 140 Woolwich Church Street, 12-38 Samuel Street, 15, 17a and 17 Parsons Hill, 84-86 St. Mary Street, 2-14 and 20-34 John Wilson Street, 28-38 Frances Street, 23-33 Nightingale Place, 1, 2 and 3 Carolina Place, and 17 Marshall's Grove, for B.C.—J. W. Dove and Co., 188 Plumstead High Street, London, S.E.18, £2,037 (recommended); Gorst and Co., Ltd., £2,769; Charles Griffiths, Ltd., £5,004; W. H. Penfold and Sons, Ltd., £2,663; E. W. Spears and Co., Ltd., £2,975.

ELECTRICAL

Belfast.—Complete electrical installation at Strandtown Primary School, North Road, for City Council—Rotary Electric Co. (Belfast), Ltd., 25 North Thomas Street, Belfast. Work is expected to start in Jan.

Bolton, Lancs.—Fire alarm system in the District General Hospital, for the Manchester Regional Hospital Board—Hallams (Electrical Contractors), Ltd., Stockport, £6,308 (recommended, subject to Ministry approval).

Congleton, Ches.—Electrical re-wiring of War Memorial Hospital, for Manchester Regional Hospital Board—H. E. Charlesworth, Buglawton Factory Site, Congleton, £840 (recommended, subject to Ministry approval).

Edmonton, Middx.—Electrical installation for blocks G and H at Y.O.C. estate, for B.C.—Direct Labour, £1,823 (recommended).

Glasgow.—Electrical installation and services at the following for Education Committee, Anniesland College—B. Brench, £30,640; Damshot Road Secondary School — H. Cheetham and Co., Ltd., 25 Woodside Place, Glasgow, C.3. £35,684; James Kilpatrick and Son, Ltd., River Cart Walk, Glasgow, £33,648.

Kiveton Park, Yorks.—Re-wiring of the electricity supply to the Dinnington sewage disposal works for R.D.C.—Yorkshire Electricity Board, £769.

Luton, Beds.—Installation of a lift at "The Mount," 107 London Road, for B.C.—Scott's Building Services, Ltd., £1,684.

Oldham, Lancs.—Installation of fire alarm system and bed-lift at Oldham and District General Hospital, for Manchester Regional Hospital Board—Associated Fire Alarms, Ltd., 255 Cheetham Hill Road, Manchester, 8, £6,694, and Whitworth, Whittaker and Co., Ltd., Rochdale Road, Oldham, £4,866 respectively (recommended, subject to Ministry approval).

Rochdale, Lancs.—Installation of bed lift in Pennine Ward at Birch Hill Hospital, for Manchester Regional Hospital Board—C. A. Percival, Armour Place, Blackley, Manchester, 9, £10,601 (recommended, subject to Ministry approval).

Southend-on-Sea, Essex.—Carrying out of the 1962 Town Illuminations scheme for B.C.—Eastern Electricity Board, £25,581 (recommended).

Stoke-on-Trent, Staffs.—Installation of traffic light signals at junction of Etruria Road and Cobridge Road, Etruria, for City Council—S.G.E. Signals, Ltd., £1,317 (recommended).

Watford, Herts.—Provision and installation of traffic signals at Water Lane, for B.C.—Automatic Telephone and Electric Co., Ltd., Strowger House, 8 Arundel Street, London, W.C.2. £1,365 (recommended).

FENCING

Ashton-under-Lyne, Lancs.—Road works and fencing in Fountains Street, adjacent to General Hospital, for Manchester Regional Hospital Board—Gortac, Ltd., Redgate Lane, Manchester, 12, £2,075 (recommended, subject to Ministry approval).

Dagenham, Essex.—Supply of mild steel railings for Triptons County Secondary School, for B.C.—Thomas Bowen, Ltd., Bowen Street, Parkfields, Wolverhampton, £771 (recommended).

Ealing, Middx.—Provision of fencing along Ruislip Road boundary at Perivale Park, for B.C.—Uxbridge Fencing and Products, Ltd., Cowley Mill Road, Uxbridge, £742 (recommended).

High Wycombe, Bucks. — Reinstatement of front gates and fences to 89 pre-war houses at Suffield Road, for B.C.—E. Devers, New Bungalow, Little Lane, Loosley Row, Princes Risborough, £2,580 (recommended).

Oxford.—Following for City Council: Supply and erection of chain link fencing around tennis courts at Alexandra Court—Invicta Fencing Co., Ltd., 327 High Road, Harold Weald Middx., £646; around tennis courts at Bury Knowle Park and Valentia Road recreation ground — Peerless Fence and Products, Ltd., Harefield, Middx., £618 and £381 respectively (recommended).

West Kesteven, Lincs.—Provision of 1,100yd. of division fencing in chain link, secured to concrete posts, and 230yd. of boundary fencing, secured to concrete posts, at the housing site, Bourne Road, Colsterworth, and 265yd. of similar fencing at Claypole, for R.D.C. J. Dean, surveyor — Fencraft Engineering, Ltd., Gonerby Works, Grantham, £1,031.

GAS AND WATER SUPPLY

Dublin, Eire.—Construction of an underground water storage tank at the airport, for Department of Transport and Power—H. K. McDermott and Sons, Ltd., Frankfort Works, Dundrum Road, Dublin.

East Shropshire.—Following for the East Shropshire Water Board. A. H. S. Waters and Partners, consulting engineers, 25

Temple Row, Birmingham, 2. Overdale/Hadley link main, involving about 2,540 lin. yd. of 6in. dia. asbestos-cement water main and incidental works—Roads and Pipelines, Ltd., Shrewsbury, £8,661 (accepted); Martin Mullen and Co., £9,816; Wrekin Construction Co., Ltd., £10,307; F. J. Duffey, £10,434; Clee Hill Transport and Rolling Co., £10,764; C. R. Coxhill, Ltd., £11,574; E. Thompson, Ltd., £11,782; Beechwood Construction Co., Ltd., £12,942; The Baillie Contracting Co., Ltd., £16,317; Heston Bros., Ltd., £13,166.

Broseley water supply extensions and relief pipeline at Coalbrookdale, comprising the construction of approximately 3,320 lin. yd. of 9in. and 6in. dia. spun-iron water mains, and incidental works—Roads and Pipelines, Ltd., £12,971 (accepted); Martin Mullen and Co., £13,957; C. R. Coxhill, Ltd., £15,937; Clee Hill Transport and Rolling Co., £17,259; E. Thompson, Ltd., £17,288; Beechwood Construction Co., Ltd., £19,708; Wrekin Construction Co., Ltd., £21,004; The Baillie Contracting Co., Ltd., £22,231.

Holmfirth, Yorks.—Laying of water main at Stagwood Hill, Totties Lane, Binns Lane, Hebble Drive and Wooldale Avenue, for U.D.C. J. Wigfield, engineer and surveyor—J. P. Walsh and Co., Scunthorpe, £1,523.

Plymouth, Devon. — Construction of the Dousland water treatment works, for City Council—W. H. Lonergan, Ltd., Delgany House, Crownhill, Plymouth, £73,167 (recommended, subject to Ministry approval).

South Derbyshire. — Construction of a reinforced concrete service reservoir of 10 million gallons capacity, for Water Board—Bowmer and Kirkland, Ltd., Heage, Derbys., £127,282. I. G. Edwards, engineer and general manager to the Board and Ritchie and Partners, consulting engineers, Alton, Kitsbury Road, Berkhamsted, Herts. Work about to commence.

HARBOURS, PIERS AND SEA DEFENCE WORKS

Plymouth, Devon. — Docking, scraping and preparing the North Corner Pontoon for examination, for City Council—Willoughby (Plymouth), Ltd., G.W. Docks, Plymouth, £2,775 (recommended).

Somerset.—Wick St. Lawrence wall scheme 3, improvement of sea defences, for River Board—Robert Hobbs and Co., Plantation Works, Portbury, Som., £24,917. Work commenced.

HEATING AND VENTILATING

Belfast.—Following for City Council: (c) Renewal of existing low pressure hot water heating boiler at Nettlefield Primary School, Radnor Street; (d) renewal of existing low pressure hot water heating boiler and ancillaries at Avoniel Primary School, Avoniel Road; (e) conversion of craft room into a physics laboratory at Model Secondary School for Boys, Ballysillan Road; (f) repairs and improvements to Gate Lodge at Glenbank Park—(c) and (d), Central Heating (N.I.), Ltd., 18 Athol Street, Belfast; (e) T. S. Callen, 12 Northumberland Street, Belfast; (f) Thos. Anderson, Whitehouse, Newtownabbey.

Dudley, Worcs.—Installation of hot water in 215 houses at Wren's Nest estate, for B.C.—A. E. Perkins and Son, Ltd., £17,200 (recommended).

Edmonton, Middx.—Following sub-contractors for new library and clinic at Ridge House, for B.C.: Oil burning equipment—British Oil Burners, Ltd., 23 Fitzroy Square, London, W.1, £960; central heating—Thames Bank Iron Co., Ltd., Lodge Road, London, N.W.8, £3,247 (recommended).

Sheffield.—Installation of clean air equipment in the English Steel Corporation's new works at Tinsley Park and their River Don works—W. C. Holmes and Co., Ltd., Huddersfield, £250,000.

Wallasey, Ches.—Secondary Technical Grammar School, Mosslands Drive—heating, ventilating, hot and cold water services in connection with conversion of plumbing shop into advanced chemistry laboratory, for B.C.—Young, Austen and Young, Ltd., 4 Roscoe Street, Liverpool, 1.

West Bromwich, Staffs.—Installation of two boilers at Joseph Edward Cox School, for B.C.—Direct Labour, £1,198 (recommended).

HOUSING SCHEMES

Ash, Surrey.—Two police houses with garages at Ash Vale Road, for C.C.—G. Kemp, Stroud and Co., Ltd., Elms Road, Aldershot, Hants, £7,055 (recommended, in lieu of previous tender).

Belper, Derbys.—Twenty old people's bungalows at Vicarage Lane, Duffield, for R.D.C.—Vic Hallam (Contractors), Ltd., Langley Mill, Notts., £30,832. Work commenced.

Bingley, Yorks.—Seventy-eight houses on the Gilsead estate, for U.D.C. — Gregory Housing, Ltd., 21 Farncombe Road, Worthing (fixed price tender, recommended).

Bournemouth, Hants.—Block of 134 luxury flats on the East Cliff for Langland Developments (Bournemouth) — Kirk and Kirk, Ltd., Atlas Works, 287 Upper Richmond Road, London, S.W.15. Estimated cost £1m.

Caterham, Surrey.—Completion of four police houses at Milton Road, for C.C.—G. W. Hitchcox, 57 High Street, Caterham, £741 (recommended).

Chatham, Kent. — Twenty-eight houses at Dargets Road and Lordswood Lane, for B.C.—Hawkes Construction Co., 24 Railway Street, Gillingham, £57,700 (recommended).

Docking, Norfolk.—Following for R.D.C.: Thirty bungalows for old people and a warden's house at Heacham—F. W. Shanks, Ltd., Park Road, Hunstanton, £58,980; eight bungalows at Dunns Lane, North Creake—Potter Bros., Yaxham Road, East Dereham, £14,113.

Edmonton, Middx.—Following sub-contractors for block J at Snell Park redevelopment, for B.C.: Reinforced concrete piling—Simplex Concrete Piles, Ltd., 8 Lygon Place, London, S.W.1, £4,700; design and supply of reinforcement — Reinforced Concrete Steel Co., Ltd., 54 Victoria Street, London, S.W.1, £4,700 (recommended).

Evesham, Worcs.—Twelve dwellings at Offenham, for R.D.C.—C. Steward and Son, Ltd., 146 High Street, Broadway, Worcs., £29,676.

Halifax, Yorks.—One hundred and thirty-two houses at Brow Bottom and ten houses at Seed Hill Terrace, for B.C.—F. Shepherd and Son, Ltd., Blue Bridge Lane, York.

Helston, Corn.—Eight Homeville traditional flats and block of bed-sitting rooms at Vyvian Place, for B.C.—Noye Bros., Helston.

Huddersfield, Yorks. — Thirty dwellings at Heathfield, Crosland Moor, for B.C. S. M. Richmond, borough architect — Gregory Construction (Yorks.), Ltd., Wellesley House, Botham Hall Road, Longwood, Huddersfield.

Huntingdon and Godmanchester, Hunts. — Ninety-nine houses and 51 garages for B.C.—F. B. Thackray and Co., Ltd., St. Peters Hill, Huntingdon, £220,236 (recommended, in lieu of previous tender).

Lancaster.—Resident Medical Officers' flats at Royal Infirmary, for Manchester Regional Hospital Board—Thompson and Jackson, Ltd., St. Anne's Place, Moor Lane, Lancaster £10,926 (recommended, subject to Ministry approval).



Limavady, Londonderry. — Ten houses at Drumsurn, for R.D.C.—F. Dillon, Station Road, Dungiven, Londonderry, £17,679 (subject to Ministry approval).

Luton, Beds.—Sixteeen old people's dwellings adjoining Regis Road, for B.C.—John Laing and Son, Ltd., Mill Hill, London, N.W.7, £32,136 (negotiated extension of contract, subject to Ministry approval).

Maltby, Yorks. — Twenty-three old people's bungalows and warden's house at Cross Street, for U.D.C.—C. Mollekin, Ltd., Manor Buildings, Braithwell Road, Maltby.

Middlesbrough, Yorks.—Eleven bungalows, 16 flats, and eight flatlets at Berwick Hills, and 24 flats and 16 flatlets at Pallister Park for the B.C. J. A. Kenyon, borough engineer—Emco (Builders), Ltd., Kings Road, North Ormesby, Middlesbrough, (recommended).

Richmond, Yorks.—Fifty-two dwellings at Walkerville, Catterick Camp, for R.D.C. J. T. Powell, engineer and surveyor—F. Shepherd and Son, Ltd., Blue Bridge Lane, York. Estimated cost £80,000.

Rothwell, Yorks.—Houses and bungalows at Town Street (East) Carlton, for the U.D.C. R. A. Easdale and Son, architects, County Chambers, 12 Wesley Street, Castleford—Harlow and Milner, Ltd., Warrengate, Wakefield, £65,184. Work commencing in the immediate future.

Scotland.—Scottish Special Housing Association, Ltd., contracts placed Oct. 25 to Nov. 22.

Carron Street, Glasgow (180 N.F. flats): Boundary fencing (chain link)—James Ross, Loganlea, West Calder.

Toryglen, Glasgow (ten garages): Bitumen felt to roofs—Wm. Briggs and Sons, Ltd., 5 Claremont Gardens, Glasgow, C.3.

Thrashbush, Airdrie (58 N.F. cottages): Supply of canopies and supply and erection of stair handrails—Barnet and Morton, Ltd., Hayfield Works, Kirkcaldy.

Eglinton 4th development, central area, Irvine, 2nd contract: Trial bores—Andrew Kyle, Ltd., Airyknowe, Galston.

Kildrum, 17, 18 and 19, contract E.49, Cumbernauld: Stockproof boundary fencing—Jas. Strang and Son, Brightons, Polmont.

Larkfield, Greenock (maintenance depot): Glazier—Geo. G. Kirk, Ltd., 20 Cook Street, Glasgow, C.5.

Abbotsgrange Road, Grangemouth (150 Dunedin flats): Screen walls and stores—Robt. Chisholm and Co., Ltd., 40 Gorgie Road, Edinburgh.

Garthdee, Aberdeen (176 Orlit): Joiner, etc.—James Blake, Ltd., 30/32 Great Western Road, Aberdeen.

Foxbar, Paisley (112: two 15-storey blocks): Stair railings—Barnet and Morton, Ltd., Hayfield Works, Kirkcaldy.

Calton & Crosshill and Meadows, Campbeltown (200 Cruden): Painter—Geo. Millar and Partners, 11 Cardross Road, Greenock.

Garthdee, Aberdeen (330 various): Painter—J. F. Gray, 83 Bon Accord Street, Aberdeen.

Glenboig, Lanarkshire (20 trad.): Painter—Stanwall Decorators, 3 Whitehill Street, Glasgow.

West End, Loanhead (26 trad.): Painter—A. D. Lamb and Sons, Ltd., 11 Harrison Road, Edinburgh.

Muiredge, Buckhaven (50 Dunedin, 98 trad.): Painter—A. D. Lamb and Sons, Ltd., 11 Harrison Road, Edinburgh.

The Flours, Forres (36 Weir, 64 Cruden): Painter—Forteith and Macdonald, 52 Main Street, New Elgin.

Stoneyburn, West Lothian (54 Wimpey, 24 trad., eight trad.): Painter—Bathgate Co-operative Society, Ltd., 44 Jarvey Street, Bathgate.

Faifley, Clydebank (136 N.F. flats): Painter—J. McAteer, 53 Thornbridge Road, Garrowhill.

East Carmuirs, Falkirk (260 Dunedin): Painter—J. McAteer, 53 Thornbridge Road, Garrowhill.

Livingstone Street, Clydebank (200 Whitson-Fairhurst): Painter — J. McAteer, 53 Thornbridge Road, Garrowhill.

Fairyburn, Alloa (100 Cruden): Painter—J. McAteer, 53 Thornbridge Road, Garrowhill.

Mains of Fintry, Dundee (518 No-fines): Painter—McLean and Stewart, 50 Victoria Road, Dundee.

Bo'ness, West Lothian (22 trad.): Painter—Bathgate Co-operative Society, Ltd., 44 Jarvey Street, Bathgate.

Bishopbriggs, Renfrewshire (2 trad.): Painter — Stanwall Decorators, 3 Whitehill Street, Glasgow, E.1.

Gallowshade, Forfar (30 trad.): Painter—J. and D. Edwards, 177 East High Street, Forfar.

Dalneigh, Inverness (126 trad.): Painter—Ian M. Hastie, Ltd., 107 Castle Street, Inverness.

New Stevenston, Lanarkshire (36 trad.): Painter—J. D. Maguire and Co., Ltd., 20 Burnblea Street, Hamilton.

Laighstonehall, Hamilton (60 Miller): Painter—J. D. Maguire and Co., Ltd., 20 Burnblea Street, Hamilton.

Wylie Street, Hamilton (36 Weir flats): Painter—J. McAteer, 53 Thornbridge Road, Garrowhill.

High Valleyfield, Fife (18 Weir): Painter—Jas. Rankin, 111 New Row, Dunfermline.

Kingston, Neilston (54 Louden trad.): Painter—S.S.H.A., Ltd., D.L.O.

Fernhill and Hillend, Rutherglen (166 Louden trad.): Painter—S.S.H.A., Ltd., D.L.O.

3 Laurel Bank Place, Newbattle: Repairing wall—W. J. Hendry, 63 Abbeyhill, Edinburgh.

Bank Street, Irvine (60 trad.): Painter—S.S.H.A., Ltd., D.L.O.

Valley Gardens, Kirkcaldy (122 trad.): Painter—S.S.H.A., Ltd., D.L.O.

Lane Farm, Drongan (84 Wimpey, 40 trad.): Painter—S.S.H.A., Ltd., D.L.O.

Foxbar, Paisley (84 Wimpey flats): Painter—J. McAteer, 53 Thornbridge Road, Garrowhill.

Kennoway, Fife (36 Dunedin cottages and flats): Painter—Neil Nicholson and Son, 12 Whytehouse Avenue, Kirkcaldy.

Laighstonehall, Hamilton (110 trad.): Painter—J. D. Maguire and Co., Ltd., 20 Burnblea Street, Hamilton.

Bellsmyre, Dumbarton (3 Wimpey N.F.): Stripping and wall boarding—S.S.H.A., Ltd., D.L.O.

Mosside, Cowdenbeath (20 trad.): Painter—J. Rankin, 111 New Row, Dunfermline.

Muirhouse Avenue, Edinburgh (136 flats): Painter—A. D. Lamb and Sons, Ltd., 13 Harrison Road, Edinburgh.

Cuiken Burn, Penicuik (50 Thomson): Painter—A. D. Lamb and Sons, Ltd., 13 Harrison Road, Edinburgh.

Mill Road, Bothwell (30 trad.): Painter—Jas. and M. Rough, Ltd., 181 Duke Street, Glasgow.

Auchterderran, Fife (72 No-fines, 96 Dunedin): Painter—Oates and Forsyth, 15 Bank Street, Lochgelly.

We Are...

With our fleet of the latest Caterpillar equipment and specialised working techniques, we are equipped to handle

REMOVAL OF TREES AND ROOTS

MUCK SHIFTING

DEMOLITION

ADVISORY SERVICE

'Phone Warrington 34059 or write and a technical representative will be pleased to visit you and your site—to advise and quote on the fastest solution to your site clearance, demolition or muck shifting problem.

SITE CLEARANCE CO LTD

162 WILDERSPOOL CAUSEWAY, WARRINGTON 'Phone: Warrington 34059

Breaking all clearance records with Caterpillar equipment.

Danderhall, Midlothian (22 trad.): Painter—A. D. Lamb and Sons, Ltd., 13 Harrison Road, Edinburgh.

Falside, Bathgate (237 houses): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Pinkie Braes, Musselburgh (46 Dunedin): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Currie, Midlothian (22 Dunedin): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Rosewell, Midlothian (60 trad.): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Bilston, Midlothian (74 trad.): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Honeyfield, Jedburgh (30 Miller): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Abbotseat Road, Kelso (50 Miller): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

The Policies, Galashiels (30 Cruden): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Pathhead, Midlothian (20 trad.): Painter—A. D. Lamb and Son, Ltd., 13 Harrison Road, Edinburgh.

Addiebrownhill, Midlothian (42 trad.): Painter—Bathgate Co-operative Society, Ltd., 44 Jarvey Street, Bathgate.

25 Manor Place, Edinburgh: Painter—T. W. Scott, 62 Castle Street, Edinburgh.

Welton Road, Mauchline (76 trad.): Painter—S.S.H.A., Ltd., D.L.O.

Carskeoch, Patna (120 various): Painter—S.S.H.A., Ltd., D.L.O.

Carskeoch, Patna (40 Weir): Cleaning of burn—Charles Ward, 7 Deanbank Crescent, Patna.

Carskeoch, Patna (80 Weir): Surfacing repairs—J. and D. Kirkland, 1 Church Street, Kilmarnock.

Seaham, Dur.—One hundred and thirty-six houses on the Northlea estate for the U.D.C. Alan Barratt, surveyor—Direct Labour.

Sheffield.—Second phase of Park Hill flats scheme comprising 1,160 dwellings in blocks of varying height, the tallest being 18 storeys, for City Council—Direct Labour. £3,395,425 (negotiated price, recommended subject to Ministry approval).

Smethwick, Staffs.—Twenty-one one-bedroom aged persons' flats at Perry Hill, for B.C.—Peter Kite and Son, Ltd., Festival Works, Coombs Road, Halesowen, £35,383 (recommended).

Stoke-on-Trent, Staffs. — Following dwellings for City Council: 13 in Hanley area—W. Withington, Walton House, Eaves Lane, Bucknall, Stoke-on-Trent, £22,855; 38 in Abbey Hulton and Norton area — Direct Labour, £56,966; 20 at Beverley Drive, Ubberley/Bentilee estate—H. Davis, Ashley, near Market Drayton, £28,422; 26 in Blurton and Newstead area and eight in Trent Vale area—A. Hughes, Ltd., 87 Allerton Road, Trentham, Stoke-on-Trent, £37,898 and £13,367 respectively (recommended).

Wigan, Lancs.—One hundred and thirteen houses on the Laithwaite housing estate for B.C.—Direct Labour, £180,730.

Woolwich. — Fifty-four dwellings and 36 garages at Westmount Road-Elderslie Road, for B.C.—Direct Labour, £127,733 (recommended).

MATERIALS AND SUPPLIES

Birmingham. — Supply of the following quantities of bacteria bed media, block B, Minworth New Works, for the Birmingham Tame and Rea District Drainage Board: 3,000 tons 2in. to 4in. graded washed crushed gravel; 35,000 tons of 1in. to 2in. graded washed crushed gravel. Deliveries of these approximate quantities will be required during a period of two years. R. Vincent Davies, engineer to the board—Ham River Grit Co., Ltd., London Road, Canwell, near Sutton Coldfield, £27,550. Work commencing Jan.

Cardiff.—Supply of 40,000 tons of block stone in connection with flood prevention scheme at Clarence Road Bridge—In-Situ Concrete, Ltd., Phoenix Works, Caerphilly Road, Cardiff.

Dagenham, Essex.—Supply of the following for B.C.: service equipment for new transport workshops—G. T. Riches and Co., Ltd., 6 Market Road, London, N.7, £1,748; metal windows and sanitary fittings for Marks Gate County Junior School—Williams and Williams, Ltd., 39 High Holborn, London, W.C.1, £7,900; and Standard Range and Foundry Co., Ltd., Mansfield House, Strand, London, W.C.2, £585 (recommended).

Southend-on-Sea, Essex. — Provision of venetian blinds to various schools for B.C.—J. Avery and Co. (Est. 1834), Ltd., 81 Great Portland Street, London, W.1, £2,513 (recommended).

PLANT AND MECHANICAL TRANSPORT

Bolton, Lancs.—Supply of a Bedford 15cwt. van, for B.C.—Lever's Garages, Ltd., Manchester Road, Bolton (recommended).

Eastbourne, Sussex.—Supply of four Dennis Paxit Major II refuse collection vehicles with Perkins P.6 diesel engines, for B.C.—Dennis Bros., Ltd., Guildford, Surrey, £3,490 each (recommended).

Kiveton Park, Yorks.—Supply of two Dennis refuse collection vehicles, for R.D.C.—Kiveton Park Steel and Wire Works, Ltd., Kiveton Park.

London.—Provision of a Lewin Mark IX sprinkler sweeper-collector machine, for City Corporation—Lewin Road Sweepers, Ltd., Victoria Works, Hill Top, West Bromwich, Staffs., £2,453.

Lytham St. Annes, Lancs. — Supply of one Paxit III refuse collection vehicle, for B.C.—Dennis Bros., Ltd., Guildford, Surrey (recommended, subject to Ministry approval).

Northamptonshire. — Provision of a water tender for C.C.—A. E. Smith and Son (Kettering), Ltd., Carrington Street, Kettering, £3,250.

Plymouth, Devon.—Supply of a Laycock eight-ton vehicle lift, for City Council—Auto Factors, Ltd., Exeter Street, Plymouth, £750 (recommended).

Smethwick, Staffs.—Supply of a channel sweeping and gulley emptying machine, for B.C.—Johnston Bros. (Engineering), Ltd., Dorking, Surrey, £3,575 (recommended).

Southend-on-Sea, Essex.—Supply of motor mowing machines and a gang mower, for B.C.—Owen Wallis and Sons, Ltd., 61 High Street, Southend-on-Sea, £1,253 (recommended).

Watford, Herts.—Supply of a 15-cwt. truck, for B.C.—W. Harold Perry, Ltd., Station Bridge, Wealdstone, Middx., £528 (recommended).

West Bromwich, Staffs.—Supply of following for B.C.: Unit frame scaffolding—Kwikform, Ltd., 192 Waterloo Road, Birmingham, 25, £1,531; Barford 1½yd. mechanical dumper—Reliant Plant Services (Walsall Wood), Ltd., Hall Lane, Walsall Wood, £645 less £75 allowance for old machine; 2 Morris Commercial J.4 10/12-cwt. vans—Colmore Depot, Ltd., 77 Station Street, Birmingham, 5, £445 each less £85 allowance for old vehicles; one 20-cwt. light truck, Morris commercial L.D.4 complete with diesel engine and fitted with hand operated tipping gear—Colmore Depot, Ltd., £842 (recommended).



Photo by courtesy of Fibres Division, Imperial Chemical Industries Ltd. Manufacturers of 'Terylene' polyester fibre.

C IS FOR CONVEYOR BELTS at a new I.C.I. plant in Cheshire, where eight Goodyear belts of rubber and 'Terylene' carry coke, burnt lime and coke/lime mixture. 'Terylene' was chosen for its flexibility and strength, which allows exceptionally deep troughing so that deck plates, skirt boards, etc., are eliminated and idlers can be spaced 50% wider apart. 'Terylene' also withstands the heat of the coke (carried at up to 120°C.), is rotproof and resists moisture penetration. For the *right* conveyor belt, installed in the *right* way and maintained in the *right* manner, contact Goodyear Industrial Products Division at Wolverhampton.

GOODYEAR

THE GREATEST NAME IN RUBBER

The Goodyear Tyre & Rubber Company (G.B.) Limited, Industrial Products Department, Wolverhampton. Telephone: Wolverhampton 22321
Export Enquiries: 17 Stratton Street, London W.1. Telephone: Grosvenor 7861

Goodyear products are manufactured in: Argentina, Australia, Brazil, Canada, Columbia, Cuba, Eire, England, Germany, India, Indonesia, Japan, Luxembourg Mexico, N. Zealand, Peru, the Philippines, Scotland, S. Africa, Sweden, the United States, Venezuela. **Branches, Distributors and Dealers throughout the world**

PLAYING FIELDS, PARKS, ETC.

Dagenham, Essex.—Preparation and layout of playing field and grounds at John Preston Secondary School, for E.C.—S. R. Jones and Co., Ltd., 14 Station Road, Southminster, Essex, £3,872.

Ealing, Middx.—Reinstatement of Belue Park extension, for B.C.—J. S. Bishop and Co., Ltd., 430 Bath Road, Slough, Bucks., £8,945 (recommended).

Mitcham, Surrey.—Clearance of pig sties and reinstatement of land at Batsworth Road allotments, for B.C.—W. H. Penfold and Sons, Ltd., Belmont Grove, Belmont Hill, London, S.E.13. £945 (recommended); Syd. Bishop and Sons, Ltd., £950; A. Cartwright, £2,050; J. W. Elliott, £2,430.

Newcastle upon Tyne.—Landscaping grounds at Stocksfield Avenue and Silverhill Schools, for E.C.—D. Ireland, Ltd., Edge Hill, Ponteland, Northumb., £3,877 (in lieu of previous tender).

RIVER AND FLOOD PREVENTION WORKS

Lincoln.—First stage of an improvement scheme for the River Witham to prevent flooding between Bargate Weir and Brayford, for the Lincolnshire River Board—Direct Labour. Estimated cost £19,000. Work just commenced.

ROADS, BRIDGES AND SITE WORKS

Barnet, Herts.—Making-up of Grange Avenue, for U.D.C.—Herts Surfacing, Ltd., 56 Fallow Court Avenue, Finchley, London, N.12.

Bideford, Devon.—Pynes Lane housing estate Stucley Road extension (final stage), for B.C., comprising the construction of approximately 215 lin. yd. of tarmacadam carriageway 15ft. and 20ft. wide and the surfacing with tarmacadam of a further 60 lin. yd., the laying of water mains and other sundry work. H. J. Denne, borough surveyor—W. E. J. Wood and Co., Ltd., The Strand, Bideford, £4,279. Work to commence this month.

Burnham-on-Sea, Som. — Making up part of Donstan Road and the whole of Southend Gardens, Highbridge, together with ancillary works, for U.D.C. G. Harvey Mayhew, engineer and surveyor.—Ford Bros., Tarpaving, Ltd., Chelscombe, Cheddar, Som., £1,345. Work to commence Jan.

Chatham, Kent.—Repair or renewal and relaying of kerbs and paving at Chatham Hill (part), for B.C.—J. Taylor, Tonbridge (recommended).

Chingford, Essex.—Following for B.C.: Surface dressing of carriageways, 1961—The Mowlem Paving Co., Ltd., 19 Grosvenor Place, S.W.1 (work commenced); minor road improvements and resurfacing works, at Rangers Road, A.1069; Larkshall Road, B.160; Kings Road, A.110—Waywarden, Ltd., Waywarden House, 215 Forest Road, E.17.

Cockermouth, Cumb.—Provision and erection of a prestressed concrete footbridge, together with abutments, ramps, walling and parapet railings, for U.D.C.—Cumbria Contractors, Ltd., Cumberland House, Scotch Street, Whitehaven, £2,970. Work commenced.

Colwyn Bay, Denbighs.—Resurfacing of trunk Road A.55, for B.C.—H. Wilman, borough engineer and surveyor—F. G. Whitley, Son and Co., Ltd., Padeswood Road, Buckley, Flints., £1,840. Work commenced.

Colwyn Bay, Denbighs.—Construction of the Llanddulas Hill dual-carriageway improvement scheme on the main A.5 trunk road, for B.C.—D.C.M. Contractors (Liverpool), Ltd., Bluebelle Lane, Liverpool, £244,854 (subject to M.T. approval).

Eastbourne, Sussex.—Surfacing of carriageways in the 1961-62 programme, for B.C.—Constable, Hart and Co., Ltd., Richmond, Surrey (recommended).

East Riding.—Improvement of the Selby-York trunk road between Derwent House and Deighton Annexe, for C.C.—Martin Cowley, Ltd., Clay Cross, Derbyshire, £22,322.

Edmonton, Middx.—Resurfacing of seven concrete roads and 14 macadam roads, for B.C.—General Asphalte Co., Ltd., 116 Grafton Road, London, N.W.5, £18,857 (recommended).

Gravesend, Kent.—Construction of drive in hardcore and tarmacadam at 56 Pelham Road, for F. Stevenson and Son, Ltd.—Hodsons, Ltd., 17 Wrotham Road, Gravesend.

Heston and Isleworth, Middx.—Resurfacing of Wentworth Road with cold asphalt, for B.C.—William F. Rees, Ltd., 54 Victoria Street, London, S.W.1, £1,892 (recommended).

Huyton, Lancs.—Construction of a new underbridge to carry the Liverpool and Manchester railway line over Huyton Hey Road, for the British Transport Commission—Leonard Fairclough, Ltd., 3 Chapel Street, Adlington, Lancs.

Leicester. — Construction of one carriageway on the first section of a new road between Blackbird Road and Abbey Gate for City Council—Atherton-Sheehan and Co., Ltd., 107 Ashby Road, Hinckley, £25,357 (recommended).

Northamptonshire. — Widening and reconstruction of a length of about 1¼ miles of the Weedon-Atherstone trunk road (A.5) between Long Dole Bridge, at the northern end of the link road to the Motorway, and Three Ways Bridge near the Lilbourne Road junction, for C.C.—Direct Labour (recommended). Estimated cost £74,640.

Plymouth, Devon.—Surfacing of perimeter strip at rear of premises backing on to the Drake Cinema Service Court, for City Council — Direct Labour (recommended, subject to Ministry approval). Estimated cost £7,430.

Rothwell, Yorks.—Construction of site works at Town Street (East) Carlton, for the U.D.C. R. A. Easdale and Son, architects, County Chambers, 12 Wesley Street, Castleford—John O'Dea, Ltd., 145 Otley Old Road, Lawnswood, Leeds, 16, £10,217. Work commencing in the immediate future.

St. Neots, Hunts.—Site works in the second phase of the housing development at Sandfields and Abrahams, for U.D.C.—A. J. G. Potter and Sons, Ltd., High Street, Stanwick, Raunds, £16,373 (negotiated tender).

Stoke-on-Trent, Staffs.—Following for City Council: Street works and sewers at Horwood Gardens, New Ford estate, Smallthorne, and widening of Grove Road, Fenton—Staffordshire Public Works, Ltd., Campbell Road, Stoke-on-Trent, £3,143 and £12,149 respectively; making-up of Eden Grove, Warwick Avenue and Kenilworth Grove, Meir—F. J. Williams and Sons (Bucknall), Ltd., 184 Werrington Road, Bucknall, Stoke-on-Trent, £1,273 (recommended, subject to Ministry approval).

Sunbury-on-Thames, Middx.—Making-up of Gaston Way (part), for U.D.C.—E. J. Murphy, Ltd., New Farm, Manor Road, Walton-on-Thames, Surrey, £2,403. Work about to commence.

West Bromwich, Staffs.—Following for B.C.: Provision of rear access road at Hamblets estate, Lamberts End—R. J. Russell, Ltd., 15 Queen Square, Wolverhampton, £1,181; resurfacing of playgrounds at Holy Trinity, Christ Church, Fisher Street, Harvills Hawthorn, Black Lake Junior and Infants' Schools—William Prestwich and Sons, Ltd., Tudor House, Bridge Street, Walsall, £1,124 (recommended).

West Sussex.—Reconstruction of the road bridge carrying Ferring Lane over Ferring Rife, for the West Sussex River Board—J. T. Mackley and Co., Ltd., Harbour

ROLLERS *for* HIRE

ROAD ROLLERS LIMITED

Depots at:

BIRMINGHAM
Tel. REDDITCH 3741/3

LEEDS
Tel. MORLEY 4053

LEICESTER
Tel. SYSTON 3357/9

ST. HELENS
Tel. ASHTON-IN-MAKERFIELD 7284



HEAD OFFICE: ROAD ROLLERS LTD · 928 MELTON ROAD · THURMASTON · LEICESTER · Telephone: SYSTON 3357/9

Chambers, High Street, Shoreham-by-Sea, £3,173. Work has commenced.

Whitley Bay, Northumb.—Resurfacing North Parade, Oxford Street and York Road, for B.C.—J. W. and S. Doring, Ltd., Chapel Lane, Whitley Bay.

SEWERAGE, SEWAGE AND REFUSE DISPOSAL

Ashby-de-la-Zouch, Leics. — Construction of sewerage works at Swepstone and Burgoland and also at Newbold and Griffydam, for R.D.C.—G. F. Tomlinson and Sons, Ltd., City Road, Derby, £51,718 and £37,948 respectively.

Aspull, Lancs.—Scotmoor development providing for the construction of 250yd. of 6in. and 9in. surface water sewers and the construction of precast concrete manholes, and other ancillary works; and also the construction of approximately 1,440 sq. yd. of tarmacadam carriageway, complete with concrete kerbing and approximately 300 sq. yd. of concrete flag footways, for U.D.C. P. A. Major, engineer and surveyor—Executors, J. W. Bradley, Ltd., Hall Lane, Farnworth, Lancs. £4,800. Work commencing Jan. 1962.

Bexhill-on-Sea, Sussex.—Improvement of surface water drainage in the St. Peter's Crescent/London Road area, for B.C.—Direct Labour (recommended, subject to Ministry approval). Estimated cost £3,780.

Brecknock. — Aber-Clydach sewerage scheme for R.D.C., including construction of approximately 199 lin. yd. 6in. diameter stoneware pipe sewer and including manholes and other appurtenant works together with a sewage disposal works comprising septic tank and rotary filter. W. J. Rees, surveyor—C. A. and D. A. Davies, 32a High Street, Crickhowell. £1,683.

Dungannon, Tyrone.—Construction of the Ballyynakelly Sewerage Scheme, for R.D.C.—J. McGrath (Dungannon) Ltd., Dungannon £3,694 (recommended); Donnelly, Connelly and Fee, £4,339; Henry Coarv. £4,728; R. J. Pattison Nutt and Son, Ltd., £4,860; Rafferty and Dobbs, £5,177; Ulster Construction Co., £5,178; B. McStarrock, £5,672; McCrea Bros., £6,777. Work is expected to start in January.

Howden, Yorks.—Bubwith and Foggathorpe sewerage scheme, contract 1, for R.D.C. John H. Haiste and Partners, consulting engineers, Belmont House 20 Wood Lane Headingley, Leeds 6—M. Leyden, Brigg Road, Scunthorpe, Lincs., £38,090.

Leicester. — Re-laying of tributary sewers in six roads in the Highfields area for City Council — Direct Labour (recommended). Estimated cost £9,000.

Luton, Beds.—Supply of following specialist equipment for B.C.: Chalton Sewage Purification Works—pre-cast concrete humus tank, channels and supports—Costain Concrete Co., Ltd., Dolphin Square, London, S.W.1, £1,148; pre-cast concrete humus tank channel cover planks, sedimentation tank channel liners and coping stones—Trent Concrete, Ltd., Nottingham, £1,129, £402, and £573 respectively; biological filter wall units—Croft Granite Brick and Concrete Co., Ltd., Finsbury Circus, London, E.C.2, £5,526 valves and turnstile penstocks — Hartleys (Stoke-on-Trent), Ltd., Stoke-on-Trent, £1,077 and £2,899 respectively; penstocks—W. Farrer, Ltd., 82 Victoria Street, London, S.W.1, £4,222.

Sludge treatment plant at Chalton Sewage Purification Works, presses and ancillary equipment—Manor Engineering Co., Ltd., Stoke-on-Trent, £18,701; chemical handling plant—United Filters and Engineering, Ltd., 4 Burston Road, London, S.W.15, £11,608 (subject to design modifications).

Nantwich, Ches.—Drainage scheme, Cemetery Road, Weston, for R.D.C.—Peter Molloy, 5 Queen Street, Manchester, 2, £2,817

Pontefract, Yorks.—Construction of approximately 1,330 lin. yd. of 9in., 12in., 15in. and 21in. diameter soil sewer in strengthened concrete pipes in fields and roads: 16 lin. yd. of 21in. diameter precast and in-situ concrete culvert, and 67 lin. yd. of 21in. diameter asbestos-cement sewer pipe laid inside 5ft. 6in. internal diameter precast concrete segmental ring tunnel under railway embankment, together with precast concrete and brick manholes, and other incidental works, at Monkhill for B.C. A. P. Richmond, borough engineer—Pavior Construction Co., Ltd., 17 Saltaire Road, Shipley. Work commencing early 1962.

Ruislip, Middx.—Construction of culvert at Ruislip Gardens Station, for C.C.—William Old, Ltd., 433 Pinner Road, Harrow, £25,620.

Wallasey, Ches.—Land drainage and preparation of approximately 3¼ acres of playing field at Birket Primary and Junior School, for B.C.—J. R. Flood, Queensferry.

Walton-le-Dale, Lancs. — Construction of a sewage disposal works, for U.D.C. Charles J. Lomax and Son, Civil Engineers, 68 Barton Arcade, Manchester, 3. R. T. Haley and Co., Ltd., Cleckheaton, Yorks., £317,676. Work commencing Jan., 1962.

Windermere, Westmor. — Sewage pumping station at Ethel Hedley Orthopaedic Hospital, for Manchester Regional Hospital Board —Norman Jackson, Ltd., The Old Cooperage,, Gatebeck, Kendal, £5,777 (recommended, subject to Ministry approval).

Woolwich.—Provision of a 72in. sewer from Well Hall Road to Kidbroke Park Road, for flood relief in the Well Hall area, for B.C.—J. E. Billings and Co., Ltd., 54 Beddington Lane, Croydon, Surrey, £211,811 (recommended); Howard Farrow, Ltd., £229,058; Ruddock and Meighan, Ltd., £250,766; Percy Bilton, Ltd., £251,582; Fitzpatrick and Son (Contractors), Ltd., £269,987; W. and C. French, Ltd., £277,383; John Howard and Co., Ltd., £280,403.

STREET LIGHTING

Ennerdale, Cumb.—Supply, erection and installation on trunk road, A.595, Distington, of a system of high pressure mercury vapour lighting units mounted on 22 concrete columns, including underground mains supply services, for R.D.C.—B. L. Oliver, Butsfield, Birtley, Dur., £2,265.

Greenwich.—Conversion of lighting in Kidbrooke Park Road and Stratheden Road to 200 watt sodium lighting, for B.C.—Engineering and Lighting Equipment Co., Ltd., Sphere Works, Campfield Road, St. Albans, Herts., £1,113 (recommended).

Lochgilphead, Argyll.—Trunk road lighting scheme for B.C.—A.E.I., Ltd., 132 Long Acre, London, W.C.2 (recommended).

Matlock, Derbys.—Provision and erection of 28 group A, lighting units consisting of steel columns, 140-W sodium discharge lamps and auxiliary equipment, etc. on the trunk road A.6 from Mason Mills, Matlock, Bath, to the 30-m.p.h. limit, Derby Road, Cromford, for U.D.C. N. Chamberlain, engineer and surveyor—Abacus Municipal, Ltd., Sutton-in-Ashfield, Notts., £1,319. (subject to Ministry approval).

Woolwich.—Supply and erection of 81 concrete street lighting columns, etc., for relighting of Footscray Road, for B.C.—Erecon, Ltd., Great Amwell, Ware, Herts., £3,249 (recommended).

GOVERNMENT CONTRACTS

Admiralty.—Particulars of contracts over £4,000 in value, placed by Navy Works Department:

Hampshire: school—John Hunt, Ltd., Gosport, Hants; accommodation block—Charles R. Price, London, N.W.9.

Air Ministry.—Contracts to the value of £4,000 or over for the week ended Nov. 24:

Building work: Northwood, Middx.—Y. J. Lovell (Bucks.), Ltd., Gerrards Cross, Bucks.; Greenock, Renfrew—Spiers, Ltd., Glasgow, C.3.

Artificers work: Syerston, Notts.—W. J. Roberts (Bottesford), Ltd., Bottesford; Wittering, Northants.—Bettles Building Co., Ltd., Peterborough; Stradishall, Suffolk, etc. —Kerridge (Cambridge), Ltd., Cambridge.

Installation of complete hydraulic system: Isleworth, Middx.—H.M.L. (Engineering), Ltd., Isleworth, Middx.

Post Office.—Contracts for duct laying, etc., works to the value of £4,000 and over placed during the week ended Nov. 20:

P. J. Burke, Ltd., Park Street, Wombwell, Barnsley; The North Midland Construction Company, Ltd., Portland Works, Daybrook, Nottingham; William Press and Son, Ltd., 22 Queen Anne's Gate, Westminster, London, S.W.1; J. C. Shields, Ltd., Preston Road, Lytham, Lancs.; Alexander Thomson and Co. (London), Ltd., 45a Kensington High Street, London, W.8; P. J. Walls and Bros., Ltd., Saintfield Road, Carryduff, Belfast.

War Department.—Contracts placed for the week ended Nov. 24:

Aberdeenshire (Aberdeen): building — Peter Cameron (Builders), Ltd., Aberdeen.

Berkshire (Didcot and Milton): miscellaneous—H. F. Johnson, Ltd., Langley.

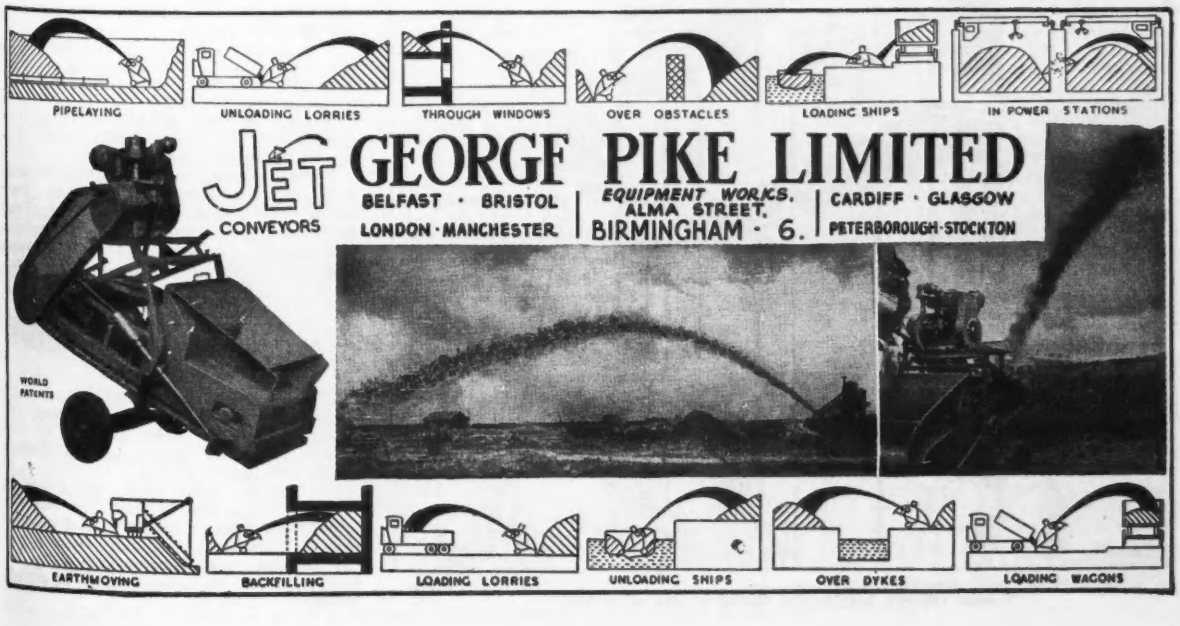
Hampshire (Blackdown and Deepcut): painting—T. H. Kenyon and Sons, Ltd., London, W.9; (Aldershot): building—R. C. Radford and Sons, Ltd., Farnham, Surrey.

Herefordshire (Hereford): building — Frank B. May, Ltd., Kington.

Kent (Dover): miscellaneous — C.A.S. (Contractors), Ltd., London, W.8.

Shropshire (Donnington): building — Dudley Boswell Construction, Ltd., Wolverhampton.

Yorkshire (Richmond): building — F. Shepherd and Son, Ltd., York.



Talking of Safety

by "DRAGEE"

HOGARTH'S famous and horrifying picture "Gin Lane" shows an occurrence which was not uncommon in the early part of the eighteenth century: an old house suddenly collapsing into the street. The great Doctor Johnson tells us that during his younger days the sound of falling buildings was heard quite regularly in the slum areas of the towns, and many people were killed or seriously injured as the result.

The scene of "Gin Lane" is St. Giles's in London, one of the districts in which the houses were built at random on any available piece of ground where there was sufficient room. The twisting and mostly unpaved alleyways between the houses were strewn with refuse, and the buildings themselves were indescribably dilapidated and verminous. Many of these dreadful habitations were used during the daytime as workshops, and one may well try to imagine the conditions under which impoverished families were obliged to work, merely to remain alive.

Turning to more recent times, I can still recall the shock, horror and amazement when I suddenly noticed that the front wall of a terrace of cottages, which was was passing at the time, had developed a sinister bulge, and that the bulge was slowly moving outwards. It was a poor street in the docks area of my home town. When I entered the street it was empty and silent, but soon it became a roar of violent momement and terror: of falling bricks and showering slates, and unforgettable cries. Soon the houses in the middle of the terrace had pulled each other to the ground, in a heap of debris and tangled furniture. The outer dwellings had lost their fronts, and stood open and amazed like giant dolls' houses, their contents uniformly coated with a hideous pall of dark red dust.

After the shock came reaction. There were all the complications which the sudden disorganisation of life entails. There were people to be found and carried or led away; water and gas to be turned off; possessions to be salvaged. We saw it all again in the days of the bombing, but then its sadness was mingled with a sense of heroism and sacrifice in the name of the common cause. This was different. It was the evidence of decay that was so horrible, and the stricken look on the face of a woman who had found herself to be suddenly without any home at all.

Quite recently I read a report about a factory which had suddenly collapsed. It was a two-storey brick building which had stood for many years on the bank of a narrow, fast-flowing stream. Something had clearly happened to the foundations at the water line. I cannot imagine why the owners had waited until the building had tumbled down before they carried out an examination. Most of us in their place would have been grubbing around the damp course and footings pretty frequently, I imagine. And this brings me to my next point.

It is not, as a rule, any part of a Safety Officer's duty to concern himself with the safety of the factory building itself—although I see no reason why it should not be. Obviously, the architect is the person best qualified to examine, consider and report upon the condition of a building, but the Safety Officer can perform a valuable service by calling attention to possible sources of danger before they get out of hand.

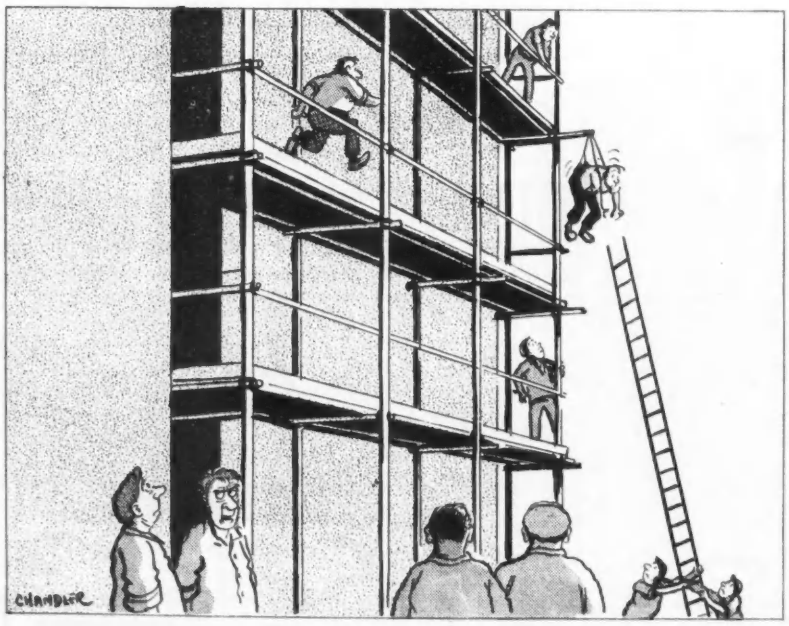
The gradual dilapidation of an old building is an obvious cause of anxiety, but other and more subtle dangers should be kept in mind. Progressive changes in the function of the building often result in serious re-distribution of masses. New plant is sometimes installed involving structural problems; new operations may involve shock loading or severe vibration to which the building is not accustomed. Settlement of the foundations is a common cause of structural weakness. This may result from bad design or workmanship, or possibly from subsidence resulting from mining operations. The concrete forming the foundations may have been attacked by acids or sulphates in the subsoil.

Changes in the loading of floors above ground often produce hazardous conditions, but danger sometimes arises from the deterioration of the flooring material itself. Dry rot in the timber, hidden rust in the structural steelwork, cracks in concrete floors—all are liable to produce dangerous conditions.

Load-bearing walls should be examined for cracks which may indicate structural failure, particularly where the surfaces have been subjected to lateral thrust. Horizontal load-bearing members in the structure should also be checked for excessive deflection.

An early warning system on these lines will help to avoid heavy repair bills at a later date, and even danger to persons employed on the premises.

"Dragee," who is a practising safety engineer, would welcome subjects for discussion in this column. All names of persons mentioned in these discussions are entirely fictitious. Questions of law are expressed as the author's personal opinions and are not claimed to be authoritative.—EDITOR.



"I must tell MY wife to use thread instead of cotton!"

URBAN MOTORWAYS A "MUST" IN TOMORROW'S CITIES

Plans for the redevelopment of city centres in Britain should be based on roads that are planned to bring people to the centre of their community—not to take them away from it. This was one of the points of a lecture delivered recently to the All-Party Roads Study Group of the House of Commons by Mr. Wilfred Burns, city planning officer, Newcastle upon Tyne.

"If we then attempt to plan all-purpose roads for the increasing volume of traffic, we will be faced with roads of enormous width which, although not designed as barriers, will become barriers to all reasonable cross-movement," he said. "Urban motorways, in my view, are the only acceptable base for planning."

Mr. Burns added that an urban motorway—a dual carriageway limited to vehicular traffic only without junctions on the same level—can carry 60 per cent. more traffic. He has recently completed a new scheme for Newcastle which includes an urban motorway and off-street car parking system earmarked as "first priority."

He pleaded for the overhaul of Britain's existing planning apparatus to take greater account of increasing traffic volume and a new idea of what people expect to find in their city centre of the future.

Regarding public transport, Mr. Burns said: "The vehicles must be made more attractive, and they should be able to get passengers as close to their destinations as the private car."

£1.2M. FOR COLONIAL DEVELOPMENT

Grants approved under the Colonial Development and Welfare Act during October amounted to £1,219,044, bringing the total since January 1, 1961, to £24,083,619.

The grants included £253,000 for a school building programme in Jamaica, £234,250 towards the cost of forest development in Kenya, £102,300 for a sewerage scheme at Zomba, Nyasaland, and £87,500 for road building and drainage works in North Borneo.

Eleven grants, totalling £173,478 were approved for Aden Protectorate. They include £43,341 towards the cost of the Protectorate's Department of Agriculture, and £40,000 to the Federation of Arab Amirates of the South to build a district hospital at Lodar.

PUBLIC LAVATORIES WITH TURNSTILES

The Minister of Housing and Local Government has made permanent the temporary ban on the granting of loan sanction for new public lavatory schemes which include turnstiles.

A circular tells local authorities in England and Wales that the Minister announced this decision to Parliament (on November 6), and asks them not to install any more turnstiles in public lavatories and to remove those at present in use.

NEW COMMISSIONS FOR PRIVATE ARCHITECTS

No Significant Change Reported

THE estimated value of new work commissioned of private architects in the period July-September, 1961, is £250m., which represents a fall of only 1 per cent. over the previous quarter. This change is not significantly different from the modest increases of 1 per cent. and 2 per cent. which occurred between the second and third quarters of 1959 and 1960 respectively.

According to the Royal Institute of British Architects, this apparently stable overall position is the result of a further fall of one eighth in the value of commissions for private owners and developers combined with a substantial increase of over one fifth in commissions for public authorities by comparison with April-June, 1961.

The value of new work for private owners at £150m. is at its lowest level since the end of 1958, whereas that of £100m. for public authorities has been exceeded only once (in the first quarter of 1960) in the period of nearly four years for which the R.I.B.A. have kept records.

More Vulnerable

These contrary movements have given rise to a situation in which work for public authorities now accounts for 40 per cent. of all new work commissioned of private architects. The corresponding proportion averaged 25 per cent. in 1958-1959 and rose to 28 per cent. in 1960; the private architect is thus relatively more vulnerable than in the past to a reduction in the work passed out to him by public authorities.

A more detailed consideration of work for these two categories of owners shows that whereas there have been falls in the value of new commissions for every type of building for private owners, educational building is the only type to show a drop in the public sector. It is now at £16m., less than at any period since 1958, but this is due largely to a fall in the new commissions for University buildings from £14m. in the second quarter of the year to £4m. in the third quarter. However, this probably reflects irregularity in the timing of new projects rather than any change in the Universities programme.

Housing Increase

The estimate of housing for public authorities shows an increase of £8m. to £30m., the present figure being 9 per cent. below the record level of a year ago. Housing commissions for private owners and developers have fallen by a further £3m. to £45m. which is 33 per cent. lower than last year. Commissions for private industrial building, which have hitherto held up well, have this quarter fallen by 19 per cent., and falls in all other categories of building for private owners average 10 per cent. If educational building, which has been nearly halved, is excluded, other public non-housing work has risen by nearly 60 per cent.

Regional Break-down

The regional break-down reveals small increases in London and Middlesex and also in Scotland, with moderate falls in all other regions except the Home Counties where last quarter's figure has been maintained.

Several exceptionally large projects have given rise to an increase in the new work undertaken by large offices (those with 11 or more architectural staff) which has been counter-balanced by falls elsewhere.

The ratio of projects cancelled or postponed to all new commissions is once again 1:10 in value terms.

ROAD HAULAGE RATES TO GO UP

The Rates Committee of the Road Haulage Association have recommended members of the Association to increase their rates by 7½ per cent. as from January 1, 1962. For certain special traffics an increase of more than 7½ per cent. is considered justifiable.

STAINES BY-PASS BRIDGE HAS NEW TYPE EXPANSION JOINT

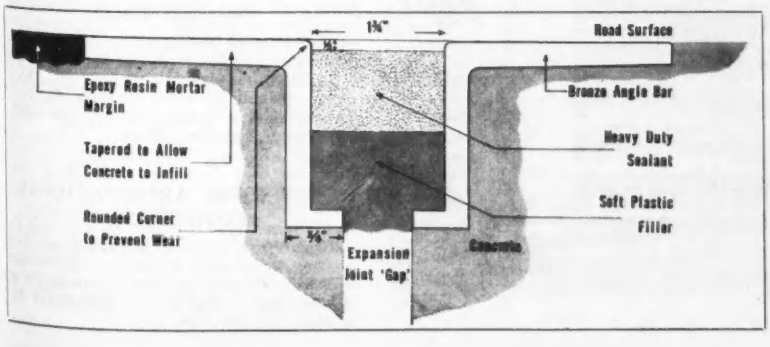
A NEW type of expansion joint was designed for the Runnymede Bridge, Staines By-pass, by the consulting engineers, C. W. Glover and Partners, to provide a hard-wearing, non-corrosive and watertight joint at the road surface.

Basically, the design provides for two bronze angle bars facing each other at the mouth of the joint. The bars are lipped at the lower edge to form a shelf on to which a soft expanded plastic filler is placed which, in turn, is covered with a heavy duty joint sealant, which has sufficient elasticity to give the required freedom for movement. Behind each bronze angle the concrete margin is surfaced with an epoxy resin/sand mortar to give increased resistance to wear and shock.

Some of the problems confronting the consulting engineers were the shape of the required bar, method of fixing and span between fixing points. It was eventually decided to utilise a specially designed angle section which was extruded in Delta Bronze No. IV by The Delta Metal Co., Ltd., Greenwich.

The underside of the uppermost angle is tapered to assist the concrete to enter completely into the angle. The top corners were rounded to minimise wear and shock. The bars (approximate total length 410ft.) have fixing lugs at intervals of approximately 3ft.

The Staines By-pass scheme formed the subject of an article in our issue of November 23.



PARKING: CALL FOR ALL-OUT ATTACK

GOVERNMENT policy plus action by the local authorities is the crux of a statement by the Roads Campaign Council, who call for an all-out national attack on Britain's chronic parking problem.

The statement says: "The Government must plan a parking policy and insist that it is turned into action by the local authorities. The frustration already created in our streets as 6,000,000 cars seek room to move and park is sufficient testimony to the abject failure of Britain's blundering attempts to reduce this problem with unimaginative restrictions.

"Authority appears to ignore two fundamental facts: Cars spend the majority of their lives stationary; the prosperity of a city or town is sacrificed unless ease of access and parking accommodation is offered to the shopper and businessman.

"We are convinced that the local authority or private developer who provides the best parking facilities at the lowest cost will find the maximum possible benefits to the rateable values of their community as a result."

Saying that local authorities have been given powers by the Government to begin an attack on the parking problem, the Council add: "Local authorities will stand in dereliction of their duty to the community if they do not meet this need.

"This is not an insoluble problem. The Government should ensure that all cities and towns assess the demand for parking space and that sites to satisfy the demand are acquired and developed. After all, who would build railways without sidings?"

TRAINING SITE SAFETY SUPERVISORS

To help check the continuing rise in accidents on construction sites, RoSPA has arranged special building and civil engineering accident prevention courses. Three such courses have already been held and the fourth will take place at the Civil Defence Staff College, Sunningdale, from February 25 to March 2, 1962.

There is likely to be an increasing demand for suitable training courses for site safety supervisors because, on March 1 next, employers in the construction industry will be required by law to appoint such supervisors if they employ more than 20 workmen. These safety men will have to be competent to interpret the regulations and to ensure that they are observed.

The need for these arrangements are shown by the fact that, in 1960, there were 20,584 reported accidents on construction sites and 277 of them were fatal. Falls are the most prolific cause of injury; a total of 6,535 workmen being injured and 154 killed as a result of falls. A further 1,974 were injured and 29 killed by falling materials.

The fourth course will follow the pattern of previous courses and lectures will be given by members of the Factory Inspectorate and by experienced construction safety officers. Practical exercises will also be carried out.

Inquiries concerning bookings and for details of the course syllabus should be addressed to the Training Officer, Industrial Safety Division, RoSPA, 52 Grosvenor Gardens, London, S.W.1.

MORE AUSTRALIAN HOME BUILDING

New houses and flats built in Australia during August totalled 7,700 compared with 7,000 for the previous month. The value of the dwellings was £A26 million.

Apart from houses and flats, approval for other buildings to the value of £A21 million was given. Alterations and additions to existing buildings were valued at £A7.4 million. Total value of all building approved during August was £A54.4 million, which was £A4.7 million less than for August 1960.

FOR THE DIARY

Dec. 7

Annual general meeting of the Institution of Highway Engineers and "Multi-level Intersections"—a symposium of Papers.

Institution of Civil Engineers, Great George Street, London, S.W.1. Informal discussion, introduced by A. H. Cantrell, S. Stevens and H. Mallinson, on "The Most Appropriate Training for a Railway Civil Engineer."

Annual dinner and dance of the Midland branch of the Contractors' Mechanical Plant Engineers, Town Hall, Sutton Coldfield.

Meeting of the London branch of the Contractors' Mechanical Plant Engineers, Hendon Way Hotel, Hendon Circus, N.W., 7.30 p.m.

Dec. 8

Annual luncheon of the Institution of Highway Engineers at the Park Lane Hotel, London, W.1, 12.30 p.m.

Federation of Master Builders' London Region "Ladies Night," Grosvenor House, London. 6.30 p.m.

Dec. 12

London Association of Master Stonemasons, bi-annual dinner and dance, Park Lane Hotel.

Meeting of Manchester and District branch of the Contractors' Mechanical Plant Engineers, Woodcourt Hotel, Brooklands Road, Sale. 7.30 p.m. Annual Christmas Stag Dinner.

Dec. 14

Stag dinner of the Yorkshire branch of the Contractors' Mechanical Plant Engineers.

Dec. 19

Meeting of the Western branch of the Contractors' Mechanical Plant Engineers, Royal Hotel, College Green, Bristol. 7.30 p.m.

Dec. 20

The Institute of Sewage Purification—Metropolitan and Southern Branch symposium on the treatment of industrial and sewage sludges at Friends House, Euston Road, London, N.W.1.

Jan. 2

Meeting of Manchester and District branch of the Contractors' Mechanical Plant Engineers, Woodcourt Hotel, Brooklands Road, Sale. 7.30 p.m. General discussion.

Jan. 9

Meeting of London branch of the Institution of Plant Engineers, Royal Society of Arts, London. 7 p.m. "Fire Research—Causes and Control," by Dr. F. E. T. Kingman, assistant director, Fire Research Centre.

Jan. 11

Meeting of the Institution of Structural Engineers, 11 Upper Belgrave Street, London, S.W.1. 6 p.m. "Structural Engineering Aspects of Vickers House, Millbank, London," by Colin Davies.

Jan. 19

Meeting of Midlands branch of the Contractors' Mechanical Plant Engineers, Wilson Arms, Knowle. Film: "Ascot Grandstand."

Jan. 23

L.M.B.A. annual general meeting and lunch, Park Lane Hotel.

Jan. 25

Meeting of the Institution of Structural Engineers, 11 Upper Belgrave Street, London, S.W.1. 6 p.m. "The Proposed Bridge over the English Channel," by Dr. A. R. Flint.

Jan. 26

London Master Plasterers Association annual general meeting, Charing Cross Hotel.

Jan. 27

Annual dinner and dance of London branch of the Contractors' Mechanical Plant Engineers, Criterion Restaurant. Piccadilly.

Feb. 1

"Mechanical Equipment for Sewage Purification Works" symposium at the Institution of Mechanical Engineers, 1 Birdcage walk, Westminster, London, S.W.1.

Feb. 6

Meeting of Manchester and District branch of the Contractors' Mechanical Plant Engineers, Woodcourt Hotel, Brooklands Road, Sale. 7.30 p.m. Film show by Blaw Knox, Ltd.

Feb. 16

Meeting of Midlands branch of the Contractors' Mechanical Plant Engineers, Wilson Arms, Knowle. "Broad Aspects of Maintenance of Contractors' Plant," by J. H. Brass, John Mowlem and Co., Ltd.

TENTH ANNUAL LAING APPRENTICES' DAY

LAING apprentices from building and civil engineering projects in various parts of the country met at the company's London headquarters on November 24 for the tenth annual Apprentices' Day.

A varied programme included tours of the 18-acre Plant and Transport Depot, research and development laboratories, a film show and an evening theatre visit. A total of more than £200 in incentive awards was presented to individual apprentices by the chairman, Mr. W. K. Laing, in recognition of success in technical studies, practical work, and general keenness and interest.

In a talk to the apprentices on the probably effects on the building and civil engineering industry if Britain were to enter the European Common Market, Mr. J. M. Laing, managing director of John Laing and Son, Ltd., said that membership would mean a time of great test. "I am convinced," he said, "that just as in time of war we can rise to the occasion and have always done so, we could rise to this great occasion. I believe that the goals we can attain in the end are very great and that we can further our position."

Mr. H. J. O. Weaver, general secretary of the National Federation of Building Trades Operatives, said that the building and civil engineering industry in this country was gaining tremendous impetus. New skills were being developed. Work study was now accepted and was something which we had got to undertake. "Our problem," he said, "is how to solve the needs of the people for housing and other buildings by increasing production.

"You apprentices," he added, "have a great opportunity as a result of your basic craft training and I would recommmend you to recognise the exciting times that are before us."

Among the guests were officials of the National Federation of Building Trades Operatives, Amalgamated Union of Building Trade Workers, National Union of General and Municipal Workers, Amalgamated Society of Woodworkers, and representatives of Brixton School of Building, Willesden Technical College and Tottenham Technical College.

NEW HEADQUARTERS FOR THE NIGERIAN PORTS AUTHORITY

UNDER a new contract, Dys Trocca Valsesia and Co., Ltd., are to build a seven-storey headquarters block in Lagos for the Nigerian Ports Authority at a cost of £431,000.

The building, due for completion in March 1963, will be fully air-conditioned and will provide some 98,000 sq. ft. of floor space, which will be divided by demountable partitioning.

Designed by London architects, W. H. Watkins Gray and Partners, the T-shaped building will be framed in reinforced concrete and clad with hollow block infill panels and mosaic tiles. The foundations consist of a concrete raft resting on vibrocompacted sand. Floors will be of solid reinforced concrete and the block will be topped by a highly insulated flat roof.

Concrete sun-breakers between windows on the main elevations will serve a decorative as well as a useful purpose. The main glass doors and a screen in the entrance hall will be etched with a local design.

Dys Trocca Valsesia are the Nigerian partners of Farrow Cubitts and Associates, a company jointly formed by Howard Farrow, Ltd., Holland & Hannen and Cubitts, Ltd., and Impresa Giachetti of Turin to undertake building and civil engineering projects throughout Nigeria.



An artist's impression of the office block

MASTER BUILDERS TO MAKE WORLD TOUR

Members of the London Region of the Federation of Master Builders are to make a world tour during February, 1962. Their itinerary includes visits to Delhi, Bangkok, Tokyo, Hong Kong, Sydney, Honolulu, Vancouver and New York.

UNIVERSITY ARCHITECTURAL COMPETITION

The University of Liverpool are now inviting architects to submit designs for halls of residence on the Carnatic site at Mossley Hill. The cost of the works will be about £1,500,000.

Trade and Company News

LARGE "DOWN-THE-HOLE" DRILLING RIGS USED IN ROAD CONSTRUCTION

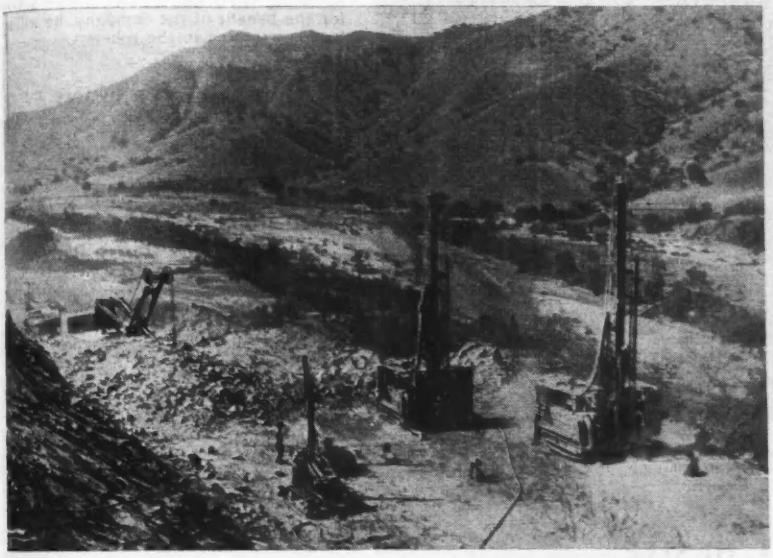
From a Correspondent

LARGE "down-the-hole" drilling rigs mounting 6½in. drill bits, usually associated with open cast mining or quarrying, have been used successfully in highway construction by a Western American firm of contractors.

Recently the Isbell Construction Company of Reno, Nevada, used two of the large Drillmasters in a contract to re-route a 7½-mile stretch of the California State Highwav 198. This is the fourth highway contract that the company has made use of the not so common "down-the-hole" rigs.

The equipment derives its unusual nickname from the fact that the actual drilling power, the impact stroke, is delivered directly onto the head of the bit deep down in the hole. A 30ft. rod, 4in. wide, connects with the hammer and the bit rotates at approximately 50 r.p.m.

Although basically new to construction circles, these "down-the-hole" rigs are actually a progression from "churn drills" and other equipment commonly used in all mining operations some years ago. Whereas the churn drill advanced its bit only with a powerful crushing stroke, "down-the-hole" units have added rotation to chip their way through, on exactly the same principle as that of rock drills.



Air track and Atlas Copco Drillmaster rigs working side by side on a major cut on the 7½-mile stretch of the California State Highway 198

Cost and Efficiency

The major point of interest in a review of the Isbell Company's recent contract is a direct cost and efficiency comparison between these large rigs and conventional air track drilling equipment.

Drilling rate with 6½in. carbide insert bits ranged from 35ft. an hour in medium soft material to as little as 20ft. an hour in hard rock. Daily production thus varied from approximately 150 to 275ft. of hole.

Isbell air tracks (tractor drill rigs, embodying the normal rotary percussive type of drill) working alongside the "down-the hole" rigs, produced twice as much footage in hard rock and slightly less than double the amount in softer formations.

However, the key figure lies in the drilling pattern itself. With the "down-the-hole" rigs Isbell commonly uses 10 x 12 centres, thus effectively drilling out a 120 sq. ft. area, whereas a 6 x 7 pattern, or 42 sq. ft. area, is standard for the air tracks. Thus on a pure performance basis, Isbell has overcome the lower drilling rate of the "down-the-hole" units by covering three times the ground.

There are, however, other factors to be taken into consideration in the direct comparison of the two types of equipment and these include the initial cost—approximately £25,000 for a Drillmaster, and the bit cost—approximately £153 for each of the big spline-type Atlas Copco bits—compared to less than £17 each for the 3in. bits used in combination with Sandvik Coromant 1½in. rope-threaded steel in Isbell air-tracks. However, bit life tends to diminish this apparent imbalance. Isbell reports an average of "well over 2,000ft. of hole" on the 6½in. bits, with an average re-sharpening life of 30 times.

Experience has proved that the big rigs require considerably less maintenance than the air tracks, but as regards mobility, both types being self-powered and tracked, they are about equal. However, with their approximately 11ft. track spread, the bigger rigs are more suitable for the bigger drilling job.

Naturally, individual job operating techniques and the availability of proper supporting equipment also can have an important effect on any such direct comparison of drilling equipment. In the larger cuts in the California Highway contract, standard procedure was 20ft. lifts, three-day drilling cycles and breaking approximately 5,000 to 6,000 cu. yd. per round fired.

Some engineers point out that it is not uncommon in mining or quarrying to sink 40ft. depth holes with "down-the-hole" big bits, thus gaining considerably more drilling efficiency for the equipment. However, the ability to blast 40ft. lifts on a highway project would depend upon individual job specifications, and it would also affect the size and amount of shovels and rolling stock required for mucking out.

All Important Denominator

The all important denominator for any contractor considering the use of "down-the-hole" equipment is clearly a plentiful volume of rock work, and in this classification Isbell's recent assignment qualified.

A total of 1,900,000 cu. yd. was involved in moving the 7½ miles of highway well back up on the hillside to avoid the Kaweah River storage area which will be created by the completion of the Terminus Dam next April. Cuts of as much as 150ft. on the high side, with 60ft. benches and fills up to 130ft. deep speak volumes for the rugged terrain at the job site.

An interesting and also unusual part of the specification was that calling for totally dry fills. Despite this, 94 per cent. to 96 per cent. compaction was achieved without difficulty.

Isbell is one of the senior contracting firms of Western America, and as a direct result of its experience with "down-the-hole" equipment in open cast mining work, purchased the first of its present pair of Atlas Copco big rigs in 1957. It added the second pair in 1958 and has used both in highway contracts since.

CENTRAL HEATING FOR SECTIONAL BUILDINGS

EIGHT "packaged" electric central heating installations for prefabricated sectional buildings of different sizes have been devised by K Central Heating Systems, 10-15 Uphill Parade, Kingsbury Road, London, N.W.9. Known as KP systems, they are suitable for timber, concrete, and asbestos-clad buildings.

Each system comprises an automatic time control, single or double thermostatic controls, and a number of radiators appropriate to the size of building to maintain any selected temperature from 50-70 deg. F. inside with outside temperatures varying down to 30 deg. F. The smallest of the systems, the KP20, includes four radiators and is intended for buildings with a floor area of 450-600 sq. ft. The largest, the KP120, has 18 radiators and is for buildings covering approximately 2,800 sq. ft. Including installation charges, the KP20 system costs £120 and the KP120 £475.

The time control allows for four spells of operation in a 24-hour period, and can be set by the user so that a system operates only when required. In a building employed as an office or workshop, for example, the time control can be set to switch the radiators on from a time shortly before the staff are due to arrive in the morning, and switch them off towards the end of the working day, with an intermediate shut-down period at midday. An over-riding manual control is provided, allowing the radiators to be turned on or off independently of the time control when desired.

Radiators are of various sizes and wattages allow basic KP systems to be adapted to suit partitioning or other dividing arrangements inside individual buildings. These units are of the type with glass-fibre insulated elements and emit heat quickly from the moment of switching on. They may either be fixed to walls or fitted with legs to stand on the floor.

METAL CLEANING SUBSIDIARY OF CASTROL

The Castrol Group announce the formation of a new subsidiary company known as Bladite, Ltd. The company will specialise in metal cleaning by mechanical means, including shot blasting, in metal spraying and in the application of protective coatings. Registered offices are at 2-8 St. Johns Road, Bootle 20.

Trade and Company News

ALUMINIUM SHUTTERING USED AT SIZEWELL NUCLEAR STATION

ALUMINIUM "soldiers" are being used as the shuttering for the casting of the reactor primary walls at the Sizewell Nuclear Power Station, Suffolk.

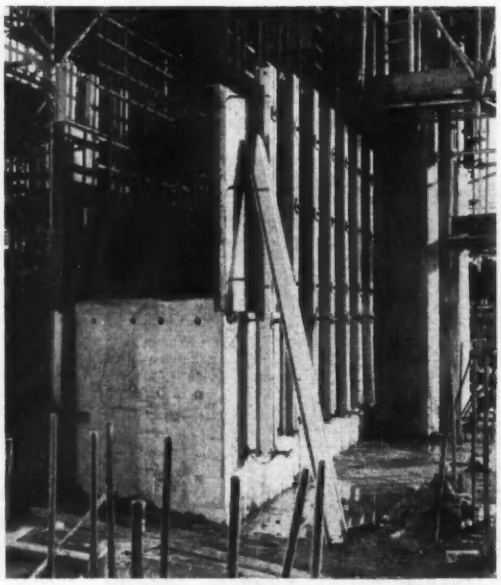
The minimum thickness of the primary walls of the two reactors is 5ft. 6in. External shuttering is held by the usual steel soldiers and is formed on the ground into sections weighing up to 5 tons before erection by crane. This technique however is not available internally due to the forest of tubular scaffolding and boards within the walls, and the consequent reduction of practical working space between scaffolding and inner wall surface.

Internal shuttering is therefore erected piecemeal in situ, and the contractors, Taylor Woodrow Construction, Ltd., have adopted aluminium soldiers made by James Booth Aluminium, Ltd.

Lengths of this channel are mounted base-to-base with a central spacer to allow the insertion of fixing bolts between the two sections. Fixings are left in each section of wall, as it is built upwards, to accommodate these fixing bolts, and the walls are poured in 5ft. lifts between the shutterings thus supported.

The aluminium soldiers are 10ft. long. Great accuracy of adjustment is required, for the reactor shield walls will each enclose a spherical pressure vessel, 63ft. 6in. in diameter, which in turn will house the graphite cores. Both reactors will then be enclosed in a main reactor building 400ft. long and 190ft. high. The shield walls will support a pilecap 11ft. 9in. thick.

Pourings are normally of 2 cu. yd. capacity or about 4 tons weight at a time. The aluminium channelling is 5in. by 2½in. by 3.54lb/foot run and is coated with zinc chromate.



This view shows the external steel and internal aluminium soldiers holding the shuttering in position

GRAVEL PIT HUSTLE

WHITLOCK BROS., LTD., report that five DD70 dumpers recently moved 12,500 cu. yd. of wall gravel in under ten days at the Westhampnett gravel pits of Hall and Co., Ltd., Chichester. On hire from Selwood's Chandlers Ford depot, they were loaded by a Michigan 175A shovel and each carrying 10-ton loads achieved cycle times of under 8 minutes on round trips of up to 1½ miles.

The material was excavated by drag line during the summer from the walls of worked-out gravel pits and dumped in lots of 2 to 4,000 cu. yd. each prior to screening at the site of each pit. Owing to the high fluctuation of the water table at this time of year these dumps would have become inaccessible and even now the travelways are deep in mud. The five DD70's have been removing and stock piling the wall ballast on high ground prior to the anticipated flooding of the pits where it is easily obtainable for processing.



One of the DD70 dumpers at Westhampnett gravel pit

TAYLOR WOODROW SHARE OPTION SCHEME

AT an extraordinary general meeting of Taylor Woodrow, held on August 25, 1961, the members approved the creation and setting aside of 600,000 Ordinary shares in the capital of the company for purposes of granting options to selected senior executives in subsidiary and associated companies of the Taylor Woodrow Group in pursuance of a scheme to be prepared and brought into operation by the directors.

The directors have now implemented this scheme by inviting some 300 employees of the Taylor Woodrow Group of companies to participate. Options will be exercisable over a period of seven years from November 27, 1961, at a price of 21s. 6d. which is approximately 10 per cent. above the middle market quotation for the ordinary shares on that date.

Although all full time executive directors of Taylor Woodrow, Ltd., are eligible for inclusion, Mr. Frank Taylor, chairman and managing director, has indicated that as he initiated this Share Option Scheme for the benefit of the company, he will not be participating in the scheme.

60/90 ASPHALT PLANT IN CAPE TOWN

The first Goodwin-Barsby 60/90 asphalt and tarmacadam plant to be exported and the first to be part manufactured outside the U.K. is now being erected at Cape Town for Simpson Road Construction Co. (Pty.), Ltd.

Goodwin Barsby and Co., Ltd., Leicester, have shipped the full screening and mixing section of the plant, including both the hot stone and the totally enclosed filler elevators. The Stordy Hauck burner equipment has also been sent out from Leicester, while the dryer section and the dust extraction plant have been manufactured by Aveling-Barford Africa (Pty.), Ltd.

A major problem in making the 60/90 available overseas, is that of essential differences in electric power supplies. Whereas all U.K. plants are equipped with standard 440 volt, three phase, 50 cycle motors, it has been necessary to meet South African conditions with modifications for the incorporation of 380 volt units.

LEYLAND GROUP'S NEW HEADQUARTERS

A new suite of offices in Berkeley Square, destined to become the headquarters of the sales organisation for the Leyland Group, was taken over by Leyland Motors, Ltd., on December 4.

The export division of the company, which operated from Hanover House in Hanover Square for over ten years, made the first move to the offices on December 4. The southern regional sales staff of Leyland Motors, Ltd., and Albion Motors, Ltd. will follow on January 1, 1962, and key members of the sales staff of Standard-Triumph International will later move to the new premises.

The address is Berkeley Square House, Berkeley Square, London W.1—telephone: Grosvenor 6050, but the cable address remains unchanged at: Leymotors, London.

CRITTALL PLASTIC WINDOW

An experimental plastic window produced by Crittall Manufacturing Co., Ltd., Braintree, Essex, is claimed to require virtually no maintenance, to be completely rustproof and to need no painting on site.

The basic construction is of Crittall standard sections, which are coated with a corrosion-resistant plastic, tightly bonded to the metal. The permanent coating is between 0.005in. and 0.010in. thick and is said to cost no more than any standard rustproofing process. Tests in the Crittall laboratories indicate that the range of colours under consideration will last at least ten years.

Trade and Company News

FIRST BRITISH-PRODUCED CASE 1000 CRAWLER TRACTOR

Production Starts At Pudsey Works

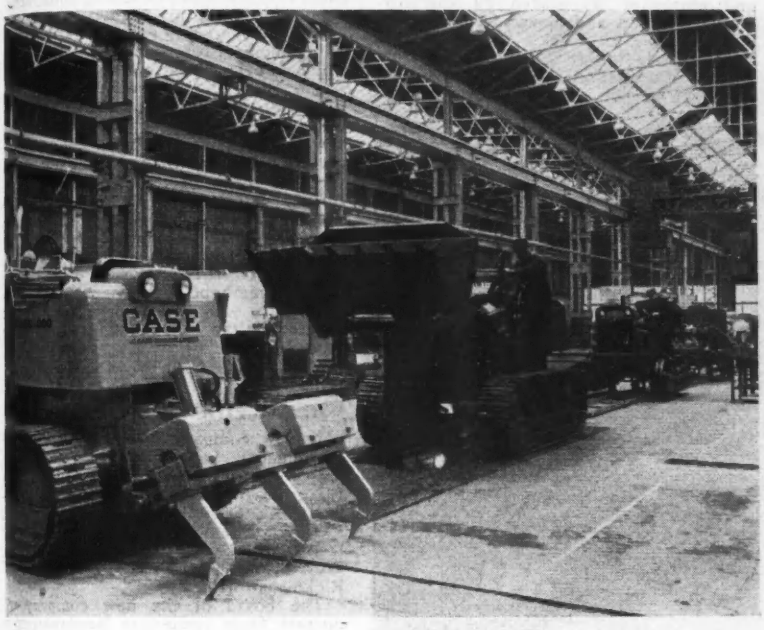
LAST week's ceremony of formally handing over the first Case 1000 crawler tractor to be produced in Britain marked the beginning of production at Grangefield Works, Stanningley, Pudsey, Yorks., which were purchased about a year ago by J. I. Case Co., Ltd., and adapted for the assembly of the 1000 and 800 crawler machines.

The machine, which is fitted with a 2 cu. yd. bucket and a three-tine ripper, will be sent to M.E.X.E. for testing. It was handed over to the managing director of J. I. Case Co., Ltd., Mr. W. Muir Robb, by Mr. Arnold Carr, chairman of the Marshall Fowler Group. John Fowler and Co. (Leeds), Ltd., are the sub-contractors for the special fabrication facilities.

In the main, the British Case 1000 crawler machine does not differ from its American counterpart. It is, however, powered by a six-cylinder Leyland 370 diesel engine, developing 94 b.h.p. at 2,000 r.p.m., and some modifications have been made to the track running gear. Styling, apart from very slight modifications, such as to the radiator grille, remains the same as the American model. At present, the only item to be imported from America is the Case Terramatic transmission, and negotiations are already in hand for the manufacture of this component in this country.

Assembly is also about to begin at Grangefield Works on the smaller Case 800 crawler tractor, for which it is envisaged that a British engine will be eventually developed. The company expect at the present time to produce in the region of five machines a week from Pudsey.

At the handing-over ceremony, which was attended by Mr. John T. Brown, vice-chairman of the American company, as well as directors and senior officials of the British Case organisation, Mr. Robb announced that an international division has now been established at London headquarters, to care for sales to Europe, Scandinavia, Middle East, Africa, India and, to some extent, certain Commonwealth countries. Representatives and service men have been strategically placed in these overseas territories and considerably increased sales of British-produced Case crawlers and equipment are expected.



Assembly line, showing first British Case crawler tractor on left

NEW TYRE AND DISC BRAKE BY DUNLOP

Two new developments announced by the Dunlop Rubber Co., Ltd., are a rear tyre for tractors, which is said to give twice the mileage on hard roads, and a mechanical disc brake for agricultural trailers.

The tyre, the R.T.40 Fieldmaster, has had its road wearing properties improved while its off-road features are retained. The disc brake is intended primarily for trailers and implements with an axle load of up to three tons, but further applications are being examined. It has automatic adjustment for wear in the friction pads.

BLAW KNOX CONSTRUCTION EQUIPMENT DIVISION

Blaw Knox, Ltd., announce that their construction equipment division is now located at Short's Way, Rochester, Kent (Tel. Chatham 41041).

The transmission and radio towers division remains at Thorn House, Upper St. Martin's Lane, London, W.C.2, which is also the address of the Company's registered office and secretarial department.

"STA-DRI" FOR DAVID BROWN MODELS

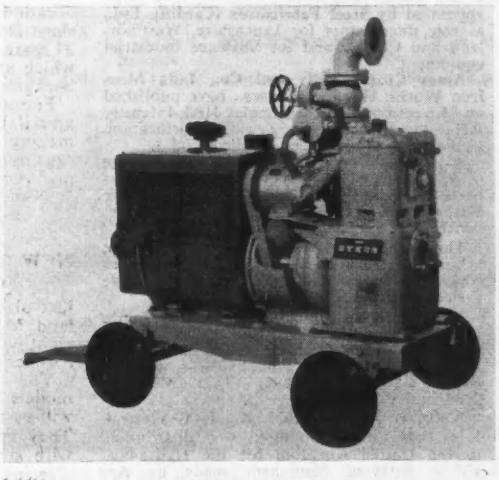
Bristol Metal Components, Ltd., Whitefield Road, Bristol 5, have commenced production on 'Sta-Dri' cabs for the David Brown 880 and 990 models.

SYKES' NEW UNIVAC 4IN. SELF-PRIMING PUMP

THE introduction of a new 4in. self-priming, centrifugal pump, the Univac UVS4, is announced by Henry Sykes, Ltd., 53b Southwark Street, London, S.E.1. It has a self-priming time of 13 sec. at 10ft. suction, an output of 27,900 g.p.h. at this lift with nominal head and an ability to pass solids of up to 2½in. diameter and abrasive sludges of up to 60 per cent. solids content. At 28ft. vertical suction lift, the priming time is 58 sec. and the output is 7,200 g.p.h.

The UVS4 is close coupled to a Lister SL3 air cooled three-cylinder diesel engine which develops 10.8 b.h.p. at 1,500 r.p.m. and 12.75 b.h.p. at 1,800 r.p.m.

A four stroke diesel, the SL3 uses pintle type injection nozzles and direct injection combustion chambers located in the piston crowns. The fuel system is maintained by a fuel lift pump from a 13-gal. tank formed in the chassis, a filter being located in the line before the totally enclosed CAV pump and injector. The fuel reservoir enables the pump to be operated for 24 hours without refuelling, under normal operating conditions.



The new UVS4 Univac pump

The close coupling shaft between the engine and the centrifugal pump is fitted with a renewable hardened sleeve where it passes through the flexibly mounted pump packing gland. This gland is externally sealed by grease impregnated packing and may be repacked at any time without dismantling the pump. The three bladed impeller is of impact and wear resistant modular cast-iron, whilst the wearing plates and casing are of high grade grey cast-iron. Where liquids which corrode cast-iron are to be handled, the pump components are supplied in suitable material.

By separating the self-priming and pumping duties in this pump, cavitation effects have been reduced to a minimum enabling high outputs to be obtained on long suction lifts and with long suction pipes of up to 500ft. length. The self priming effect is achieved in the Univac equipment which consists of a 22 c.f.m. rotary vacuum pump, vee-belt driven from the main shaft, a primary float control tank and a secondary air trap tank.

The overall length of the UVS4 is 5ft. 6in., the width and height being 3ft. 9in. and 5ft. 2in. respectively. The net weight is 17cwt.

Trade and Company News

LEYLAND MOTORS EXTEND SERVICE FACTORY AT CHORLEY

A NEW £170,000 extension has been completed at the headquarters' service factory of Leyland Motors, Ltd., at Chorley, where 60,000 sq. ft. of floor space has been added to bring the total covered area to some 140,000 sq. ft.

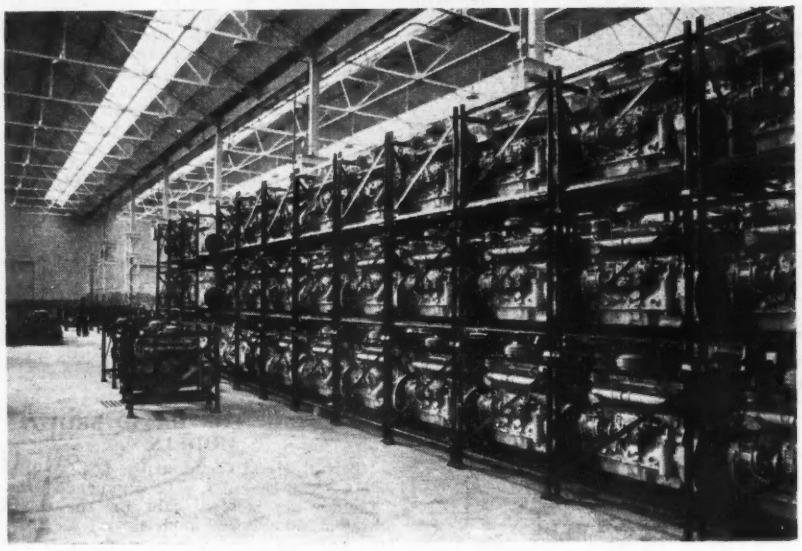
The factory houses over £4,000,000 worth of current spares and remanufactured units, which are available day and night for immediate despatch to operators at home and abroad. Spare parts for vehicles no longer in production are also manufactured in this factory.

Construction of the new extension, which incorporates five storage bays and a goods receiving and despatch bay, was undertaken by Leyland Construction Co., Ltd., and Holland & Hannen and Cubitts (North West), Ltd. It was designed by Leyland Motors' works engineering department.

Each of the five new storage bays is 225ft. long by 42ft. wide. The despatch bay is 210ft. long by 60ft. wide, and all the bays have an average height to the eaves of 28ft.

Completed in eight months, the new extension is constructed in steel frame with brick panel in-fill, except on the east side which has a dwarf brick wall with asbestos sheeting to allow for further extension. The roof is insulated with asbestos sandwich sheeting, and all five bays have electrically operated doors. The bays are heated by Mather and Platt unit heaters which incorporate electric fans. When the steam supply is isolated, the units can be used for air circulation.

More expansion is allowed with this new extension which houses packing cases of large assemblies and bulk orders for export, heavy units, unit stores and remanufactured units. Large items such as engines and gearboxes are placed on specially-designed pallets and moved from point to point by fork-lift truck. By this system it is possible to lift different units from the top of a stack and take out a required type that may be located at a lower level.



Specially designed pallets for storing engines in one of the five new storage bays

TRADE NEWS IN BRIEF

A new catalogue issued by **James Bereford and Son, Ltd.,** Ace Works, Kitts Green, Birmingham, 33, gives comprehensive details of their range of surface pumps.

Ferodo, Ltd., Chapel-en-le-Frith, Stockport, have produced a new edition of their stair-tread leaflet in A.4 size.

The new address of **Feltham Rubber Co., Ltd.,** is Green Man Lane, Feltham, Middx.

The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2, have published a brochure, as a guide and reference, to show in as simple a form as possible how the I.E.S. Code of Recommendations for good interior lighting works; how the calculations are made, and giving all the relative and necessary data for the principal ranges of G.E.C. lighting fittings.

From **K. S. Paul (Molybdenum Disulphide), Ltd.,** Angel Road, London, N.18, a copy of the second edition of their booklet "Molybdenum Disulphide in Action."

An eight-page booklet dealing with aluminium building sheets has just been issued by **James Booth Aluminium, Ltd.,** Kitts Green, Birmingham, 33. Produced to A4 and SfB classification, it gives full data on three standard profiles of corrugated and troughed aluminium building sheet: 3in. corrugated, Mansard, and Trough (type A).

Preston Plant Hire, Ltd., Stowbridge Mill, Kestor Lane, Longbridge, Preston, have been appointed by **Steel Fabricators (Cardiff), Ltd.,** as sole distributors for Lancashire, Westmorland and Cumberland for Shawnee industrial equipment.

Ames Crosta Mills and Co., Ltd., Moss Iron Works, Heywood, Lancs., have published an 84-page book on the Simplex High Intensity Aeration Process for sewage purification. Copies are available on application.

A new eight-page edition of their catalogue of Hicycle high frequency electric tools has been produced by the **Consolidated Pneumatic Tool Co., Ltd.,** 232 Dawes Road, London, S.W.6.

The Stone Firms, Ltd., Abbey Yard, Bath, have produced a 20-page booklet which gives concise technical information on a wide variety of stone fixing details.

C. H. Johnson (Machinery), Ltd., announce that their London sales office, spares, service depot, and new machine deliveries, will be removed on January 1, 1962, to 70/74 Stewart's Road, Battersea, S.W.8. Tel.: Macaulay 0288 and 0289.

Volspray, Ltd., Alfred Road, Gravesend, Kent, have been appointed sole distributors in the United Kingdom for the Hydra-coat airless spraying equipment made by Aro Equipment Corporation, Bryan, Ohio.

DIFFICULTIES ON MOTORWAY CONTRACT

IN his annual report, the chairman of A. Monk and Co., Ltd., Mr. G. Harris, says that he is deeply perturbed at the company's experience on their contract for part of the Bristol-Birmingham Motorway in Worcestershire.

"On this contract," he states, "not only did we have to contend with excessive rainfall and resultant flooding, the effects of which remained for many months, but throughout the contract which still continues, I much regret the necessity to inform Stockholders that we have had to contend with more serious handicaps.

"Anyone connected at all with our industry will well understand me when I say that it is quite impossible to carry out work in normal contractual sequence, and to tender prices in circumstances where in lieu of the original specification and design there are not only substitutions and threats of substitution at frequent intervals, but inordinate delays in making decisions. There are perhaps sound reasons for these disturbing features but if, because of the absence of settled construction details for the future highways of Britain, motorway contractors must continually be the recipients of amended instructions, which judging from what appears to be commonly understood in the industry is the case, then the contractors should be informed of likely changes, and adequate allowances both in time and money accorded as those changes take place.

"It is not altogether surprising that a further deterioration of the position on this 28 miles of motorway is shown since the date of the accounts. I cannot see much scope for immediate improvement, but every effort continues to be made, and I have some hope that success will eventually result. About a quarter of the work covered by the original tender still has to be done."

G.E.C. FORM NEW COMPANY

A new company, G.E.C. (Lighting and Equipment), Ltd., has been formed to merge the activities of the Lighting and Heating Group and the Installation Equipment Group of the General Electric Co., Ltd. It will have manufacturing and other facilities in seven factories at Birmingham, West Bromwich, Wolverhampton, Iver and Rickmansworth.

The board of the new company will operate from temporary headquarters in Newhall Street, Birmingham, until January 1. From thereafter the headquarters will be located at Lloyd House, Birmingham.

75th ANNIVERSARY BROCHURE

In October this year, J. Brockhouse and Co., Ltd., of West Bromwich, parent company of the Brockhouse Organisation, reached its 75th anniversary. To mark the occasion the annual report and balance sheet is published in the form of a special 24 page, two colour, illustrated brochure which also records something of the firm's background and achievements.

Founded by the present chairman's grandfather in 1886, with seven employees making cart and carriage springs, the organisation is now a £7½m. concern comprising over 30 companies operating both at home and abroad.

NEW TIPPERS FOR ROADMAKING

Sir Alfred McAlpine and Son, Ltd., have just placed an £80,000 contract with Leyland Motors, Ltd., for 20 of their latest eight-wheeled tipping trucks for use on road construction projects.

The tippers are all 24-ton Octopus models from the new Power-Plus range and will be powered by 200-h.p. diesel engines. They will also have a five speed gearbox with sixth-speed overdrive, power-assisted steering a power-assisted handbrake and a power-assisted clutch.

Trade and Company News

SIPOREX ROOFING FOR FORD FACTORY

Costain Concrete Awarded £250,000 Contract

NEGOTIATIONS have recently been completed for the Costain Concrete Co., Ltd., to supply and lay 25 acres of Siporex roofing for the new Ford motor factory at Halewood near Liverpool.

The decision to use Siporex was taken by consulting engineers, Posford, Pavry and Partners, after extensive tests in the yard of the main contractors, G. Percy Trentham, Ltd.

The design was based on a 2ft. module, the same as the width of the standard Siporex reinforced slabs. Most of the units are 5in. thick and 11ft. long.

Roof joints are grouted with an ordinary sand/cement mix thus making a continuous slab. It is covered with two layers of felt and one of mineralised felt bonded with a bituminous solution on the monitors and three layers of felt covered with chippings on the other roofs. The soffit has two coats of emulsion paint.

Pre-contract Tests

The tests by the consulting engineers were designed to establish the suitability of 5in. thick reinforced Siporex slabs to carry a superimposed load of 30lb. per sq. ft. on a span of 11ft. 3in. with a deflection not exceeding 1/250th of the span, and to carry a load of 60lb. per sq. ft. without excessive distortion.

Further the slabs had to be proved suited to supporting fittings normally attached to the ceiling. Tests also sought to measure the dusting likely to be experienced in untreated material and with various types of non-sealing paint treatments.



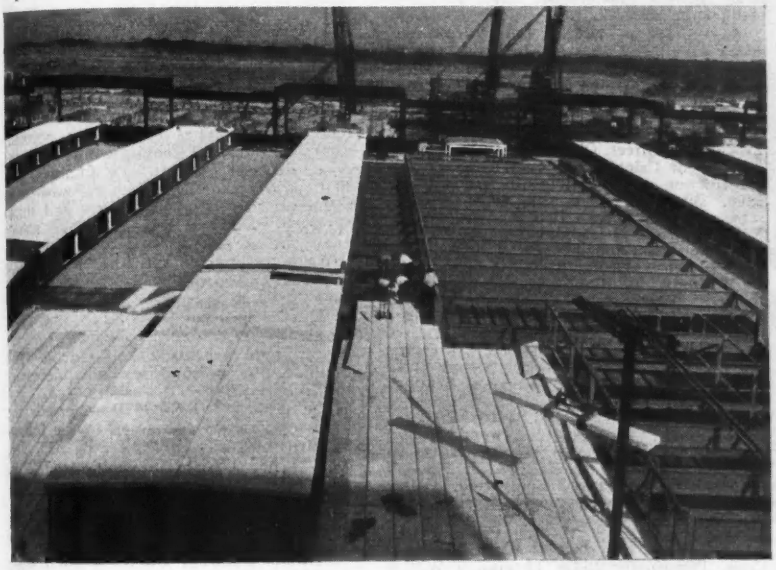
Soffit of roof

Three slabs were laid on steel supports and jointed, as in practical applications, by grouting the longitudinal joints. The underside was treated with I.C.I. Dulite emulsion paint.

Results of the tests showed that 60lb. per sq. ft. distributed load was carried with a very favourable span/deflection ratio. Further, the 60lb. per sq. ft. distributed load on the centre slab only gave deflections corresponding to a load of 20lb. per sq. ft. distributed over all three slabs.

The tests showed that: (1) The slabs satisfied the consulting engineer's requirements; (2) the effect of dusting was small; (3) fixings could be easily made direct into the material; (4) high thermal insulation permitted the heating engineers to reduce heat requirements in the factory buildings (a roof of slabs 5in. thick finished with two or three layers of roofing felt has a U-value of 0.14 B.Th.U./sq. ft. h°F.).

The roof slabs on this contract are now being laid at the rate of 10,000 sq. yd. per week. At a total cost of about £250,000 the roofing, some 120,000 sq. yd. of it, is expected to be finished in the early summer of next year.



Siporex roofing slabs being laid at the Ford factory

MICHIGAN TEST NEW COMBINATION UNDER WINTER CONDITIONS

THE new Michigan rubber tyred 210 tractor scraper and 280 tractor dozer combination recently commenced a series of tests under United Kingdom winter conditions at Robert McGregor's opencast coal site near Chesterfield.

A feature of this 19 cu. yd. heaped 210 tractor scraper is that the majority of the major Michigan power train and axle unit components are interchangeable between the tractor scraper and matched tractor dozer.

A brief specification of the 210 is as follows:

Tractor—engine—262 or 290 b.h.p. (torque converter, power shift transmission and planetary wheel axles—all proved Michigan power train units). Travel speeds —0 to 33.4 m.p.h. Wheels and tyres—26.5 x 29 (22 P.R.). Steering—two double acting hydraulic cylinders—180 deg. turning width—33ft. 7½in.

Scraper: Capacity—14 cu. yd. struck and 19 cu. yd. heaped. Cutting edge—four sections, reversible and interchangeable, offset or straight. Controls — fully hydraulic to hoist apron and ejector. Unit weight — empty — 48,590lb., payload—45,000lb. and gross—93,590lb.

Further details may be obtained from Michigan (Great Britain), Ltd., Yorktown Works, Camberley, Surrey, who are also demonstrating two of the machines this week on behalf of George Shepherd (Hatfield), Ltd., at Sir Robert McAlpine's underground car park contract in Hyde Park.



The models 210 and 280 in action

90-PAGE PUBLICATION

Alcan Industries, Ltd., Banbury, have issued "Noral Aluminium Roofing and Siding Sheets"—a 90-page publication intended to provide architects, quantity surveyors and roofing contractors with complete information about the company's corrugated and troughed aluminium building sheets.

Trade and Company News

NEW COMPANIES

The undermentioned particulars of new companies recently registered are taken from the daily register compiled by Jordan and Sons, Ltd., company registration agents, 116 Chancery Lane, London, W.C.2:—

F. H. E. Badcock, Ltd., builders, flooring contractors, etc. £100. Directors: Francis H. E. Badcock and Mrs. Hilda F. Badcock, 29 St. Marks Crescent, N.W.1.

Hopkins (Builders) Sunbury, Ltd., 73a Staines Road West, Sunbury-on-Thames, Middx. £3,000. Directors: Alfred E. Hopkins, 73a Staines Road West, Sunbury-on-Thames, Middx.; Alfred B. Hopkins, "Norge Stacks", Sayes Court Farm Drive, Addlestone.

Fox and Mullowney (Contractors), Ltd., 101 Warwick Road, Sparkhill, Birmingham, building contractors. £1,000. Directors: Michael P. Fox, 138 Westridge Road, Birmingham; Michael Mullowuey, 101 Warwick Road, Sparkhill, Birmingham.

Coventry Plant Hire Co. Ltd., 6 The Quadrant, Coventry. £1,500. Directors: Mrs. Jean V. Clarke, 2 Frobisher Road, Coventry; Mrs. Vida J. Sheehan, 107 Ashby Road, Hinckley.

L. Swift and Sons (Builders), Ltd., Oxclose Drive, Dronfield Woodhouse, Sheffield. £100. Directors: Alfred B. Swift, 2 Hunter House Road, Sheffield; John L. Swift, Oxclose Drive, Dronfield Woodhouse, Sheffield.

Sealey's (Builders) Ltd. £1,500. Permanent Directors: Arthur Sealey and Mrs. Joan W. Sealey, 65 Waterworks Road, Farlington, Portsmouth.

E. G. Key and Son, Ltd., builders. £500. Directors: Ernest G. Key and Alice L. Key, 27 Bates Road, Coventry.

Proctor Pedlar and Co., Ltd., 118 Upper Hanover Street, Sheffield, 3, builders. £1,000. Directors: Barry Proctor, 9 Grimsell Crescent, Sheffield, 6; Peter Pedlar, 123 Oldfield Road, Sheffield, 6; Purna C. Dalai, 118 Upper Hanover Street, Sheffield, 3.

R. C. Steevens and Co., Ltd., builders. £100. Directors: Richard C. Stevens and Dora M. Stevens. 45 Victoria Road, N.W.4.

Hull (Builders), Ltd., Walmsley House, Spring Bank, Hull. £100. Directors: William A. Scrutton, Ings Bridge Farm, Beverley High Road, Hull; John L. Spooner, 226 Saltshouse Road, Hull; Eric Barker, Charles H. Jaram, James A. Jordan, Luther H. Beal, Frank S. Sanderson and Edward S. Barrett.

S. Ivens and Son, Ltd., 52 Kidmore End Road, Emmer Green, Reading, builders. £5,000. Permanent Directors: Alfred L. Ivens and Annie Ivens, 52 Kidmore End Road, Emmer Green, Reading; Ralph L. Ivens, 12 Hydes Platt, Silchester.

Henson (Builders), Ltd., Imperial Buildings, Victoria Road, Horley, Surrey. £500. Directors: Leslie Henson and Mrs. P. M. Henson, 71 Queen Hythe Road, Jacobs Well, Guildford; Peter Barnes, 63 Aron Hill, Godalming, Surrey.

Joseph Hernon, Ltd., Castle Nook, Castle Street, Stroud, Glos., excavators and constructors of roads, bridges, etc, £100. Directors: Peter J, Hernon and Mrs. S. O'Shaughnessy, Castle Nook, Castle Street, Stroud, Glos.

F. M. Conway, Ltd., 149 Croydon Road. Penge, S.E.29, tar paviors. £500. Directors: Francis M. Conway and Mrs. Norah M. Conway, 149 Croydon Road, Penge, S.E.20.

P. S. Chapple, Ltd., 47 Boutport Street, Barnstaple, Devon, builders. £3,000. Directors: Phillip C. Chapple and Roger J. Chapple, 101 Pilton Street, Barnstaple.

H. and V. Crossley, Ltd., 20 Stockland Road, Romford, builders. £100. Directors: Henry J. Crossley, 59 Belgrave Avenue, Romford; Victor G. Crossley, 5 Granger Way, Romford.

C. T. Doyle (Builders), Ltd. Opas House, Market Street, Sutton-in-Ashfield, Notts. £2,000. Directors: Colin T. Doyle and Mrs. Jean Doyle, 7 Bannerman Road, Kirkby-in-Ashfield.

A. H. Franklin and Sons, Ltd., 261/267 Lillie Road, Fulham, S.W.6, builders. £5,000. Directors: George Apps and Mrs. Mildred G. Apps, Heather Lodge, Kingston Hill, Surrey.

Hughes (Builders) Portsmouth, Ltd. 23 Lombard Street, Old Portsmouth. £1,000. Directors: Alexander P. Hughes and Bertha Hughes, 23 Lombard Street, Old Portsmouth.

Watts of Calcot, Ltd., contractors for the construction of airfields, sports grounds, etc. £100. Directors: to be appointed by subscribers. Subscribers: Dennis Wisdom and K. T. Davidson, 28 Lincolns Inn Fields, W.C.2.

Fernbury Development Co. Ltd., builders. £100. Directors: George R. Wiltshire and Myra J. Wiltshire, 10 Elms Avenue, Parkstone, Poole.

Alexander Bassett and Co. Ltd., 2 Bentinck Street, W.1, agents for building and civil engineering plant, etc. £1,000. Directors: Wm. A. Cooper, 21 Horseshoe Drive, Stoke Bishop, Bristol, 9; John B. Talbot, 2 Bentinck Street, W.1.

J. Smith (Builders), Ltd. £100. Director: Wing Comdr. Alan M. G. Lywood, D.F.C., Pitt Vale Farm House, Pitt, Winchester, Hants.

R. C. Thomas and Sons, Ltd., 1, 2 and 3 The Arches, Broadway, Pontypridd, Glam., roofing contractors, slating and tiling contractors, etc. £8,000. Directors: Ronald C. Thomas, 5 Rickards Terrace, Craig, Pontypridd; Brian C. Thomas, 14 Rickards Street, Craig, Pontypridd; Peter Thomas, 5 Willow Street, Rhydyfelin, Pontypridd.

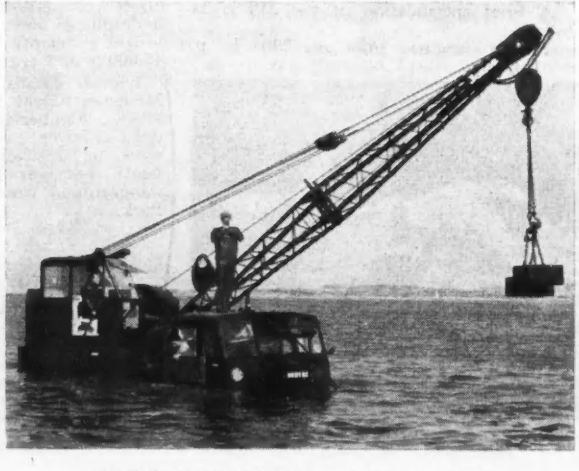
WADING TESTS ON JONES KL 10-6 CRANE

UNDER tests carried out for the British Army a Jones KL 10-6 crane mounted on a special chassis was waded into 5ft. 6in. of water and then operated fully as a crane alongside a landing craft.

The crane is of a type recently ordered by the army from K. and L. Steelfounders and Engineers, Ltd., the crane superstructures being mounted on rough terrain carrier chassis, manufactured by All Wheel Drive, Ltd.

These are primarily intended for use over unmade roads and on beaches, and in connection with the latter role the equipment was tested by British Services Fording Trials Detachment at Fremington. The first requirement was for the vehicle to be able to ford through 30in. of water with no prior preparation, and secondly it had to be capable of wading ashore through 5ft. 6in. of water, plus 1ft. 6in. splash, after the application of simple waterproofing by the vehicle crew.

The KL 10-6 has a blocked capacity of 10 tons at 10ft. radius and 6 tons free-on-wheels, also at 10ft. radius. The jib is the standard two-piece strut type lattice.



Specially mounted Jones crane on wading trial

BRITISH STANDARDS

Rolled Asphalt (Hot Process)

This (B.S. 594 : 1961) is the fourth revision of the British Standard originally published in 1935.

There are numerous changes, both in layout and in contents. In particular, the fine aggregate is no longer limited to sand; the schedules for single and wearing course mixtures have been brought together; and a table of rolling temperatures has been added.

The most important addition, however, is a new section specifying thin (¾in. to 1¼in.) wearing course mixtures to be superimposed on an existing road surface to provide a dense, impervious asphalt carpet. Price 7s. 6d. each.

Copies of these British Standards may be obtained from the British Standards Institution, Sales Branch, 2 Park Street, London, W.1.

Metal Washers for General Engineering Purposes

For some years, tables for plain washers have been included in British Standards for bolts, screws and nuts but it has been increasingly felt that these provisions did not adequately represent either users' requirements or current manufacturing practice.

A.B.S.I. technical committee was accordingly set up to deal exclusively with washers and to examine the position with regard to all types of washers normally used for general engineering purposes. Based on the committee's findings, B.S. 3410 : 1961 provides for metal washers in a greater variety of diameters and thicknesses to meet what experience has shown to be the greatest popular demand.

While, at first sight, this may appear contrary to normal simplification procedure, it is hoped that the establishment of standard series of bright and black metal washers which should meet most general engineering requirements will eliminate the demand for an unnecessary multiplicity of special washers.

The tables in B.S. 3410 supersede the tables of washers contained in the following British Standards: B.S. 57, 325, 916, 1083, 1768, 1769, 1981, 2466 and 2708. Price 6s. each.

DUCTING FOR AIR CONDITIONING

Flexible Ducting, Ltd., Maryhill, Glasgow, N.W., are marketing a new type of ducting for use in air-conditioning and ventilation.

Made by automatic machinery, this Thermaflex ducting is lightweight and can be bent to half its own diameter without loss in cross-sectional area. It can be cut or connected without the need for special fittings, clamps or elbows. The range of sizes is from 3in. to 8in. diameter, in lengths of 12ft.

BIG ORDER FOR BARBER-GREENES

A fleet of 20 new Barber-Greene Model SA-40 finishers, believed to be the largest single civilian order for asphalt pavers ever placed, has been shipped to Industrial Asphalt of California, Inc., in Los Angeles.

The train load of machines, which left the Barber-Greene plant at DeKalb, Illinois, was sold by Santa Fe Equipment Company, Inc., Barber-Greene distributor for southern California. The order was worth nearly $½ million.

SANDING MACHINE WITH DUST EXTRACTOR

Flextol Engineering Co., Ltd., The Green, Ealing, London, W.5, have announced a new sanding machine which has its own built-in dust extractor unit.

The company have developed a motor unit which not only drives a sanding disc attachment through a flexible shaft, but also drives the dust extractor.

The machine is available with straight or angle type handpieces, according to needs.

The TRADER TIPPER

delivers a load of new refinements ... just where you want them



Here is the latest list of refinements now incorporated in the famous and rugged Trader Tippers, including the standard 5 and 7 ton tippers, and the Trader 6 x 4 "Tandems" from County and All Wheel Drive.

NEW TRANSMISSION FEATURES

- *New 5-speed gearbox* now available as optional extra. Direct drive version has a crawler 1st gear of 7.58:1.
- The standard 4-speed gearbox has cast iron casing for extra strength. Clutch housing also of cast iron.
- Increased rear axle capacity of 18,500 lbs and the 100% cold rivetting of chassis frames allows greater chassis flexibility during tipper operations.

NEW ENGINE FEATURES

- New cylinder liners.
- New type exhaust valves.
- Timing gears of improved materials and design.
- Stronger valve springs used in conjunction with a new camshaft form stepping up valve bounce period to 4,000 rpm.

The 6-cyl. 330 cu. in. diesel engine of the Trader 7 ton packs tremendous power. The Hydrovac assisted braking now standard on this range is a great plus in coping with the most rugged conditions. Available with Anthony underfloor or Edbro end ram, and fixed or drop side all steel body.

TRADER DATA
7 ton Tipper (6 cu. yd.)

Max. G.V.W.	204 cwt
Frame modulus	10.0
Wheelbase	108"
Torque	253 lbs at 1,500 rpm
Chassis/Cab Price	£1,157

Also 5 ton Tipper (5 cu. yd.)
Full Trader range 1½-10 ton

6 x 4 TRADER TANDEM
All Wheel Drive
from £2168
County Commercial
from £2032

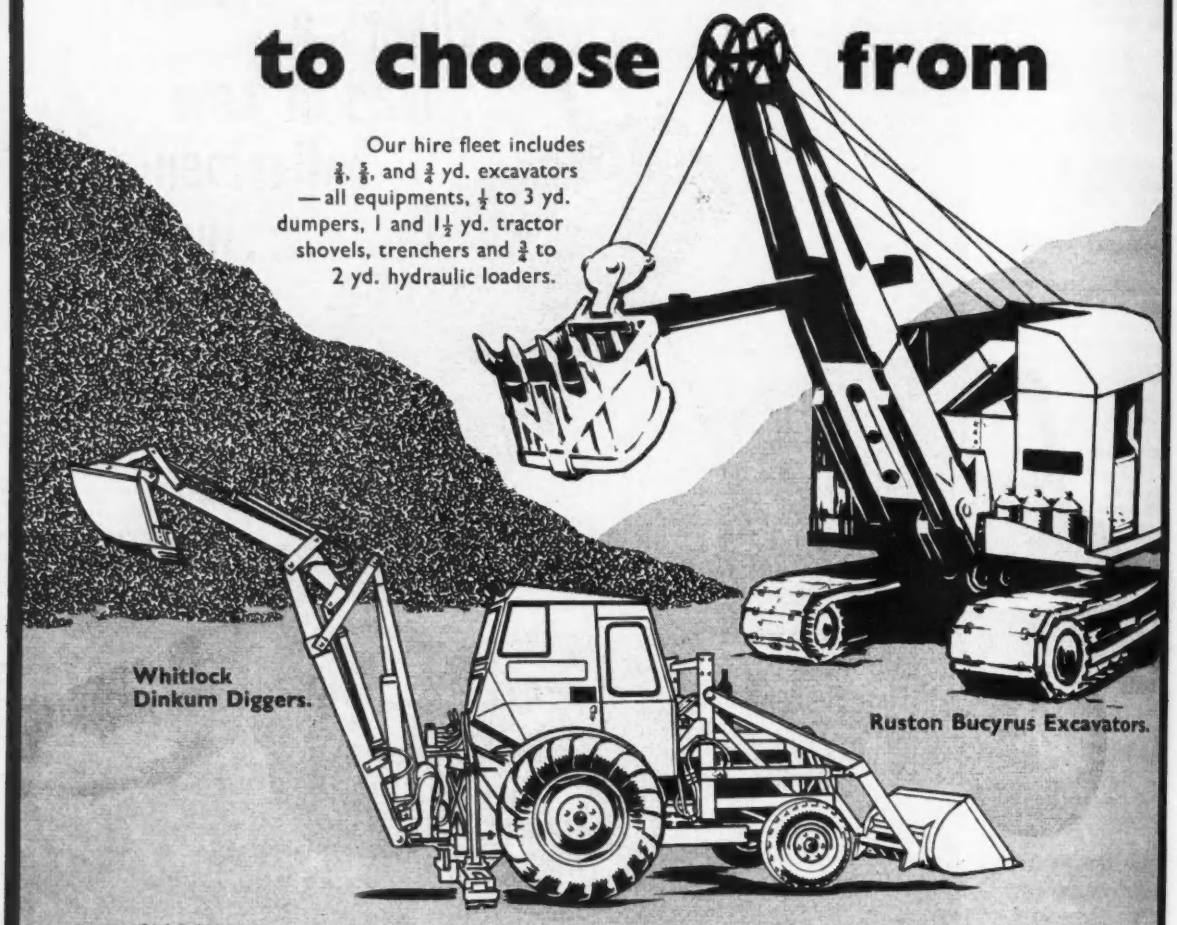


Contact your nearest Main Ford Dealer

RUGGED AND RELIABLE-THAT'S THE POWER OF THE **THAMES TRADER** BY **FORD** OF BRITAIN

FOUR MOORE
to choose from

Our hire fleet includes ⅜, ⅝, and ¾ yd. excavators — all equipments, ½ to 3 yd. dumpers, 1 and 1½ yd. tractor shovels, trenchers and ¾ to 2 yd. hydraulic loaders.

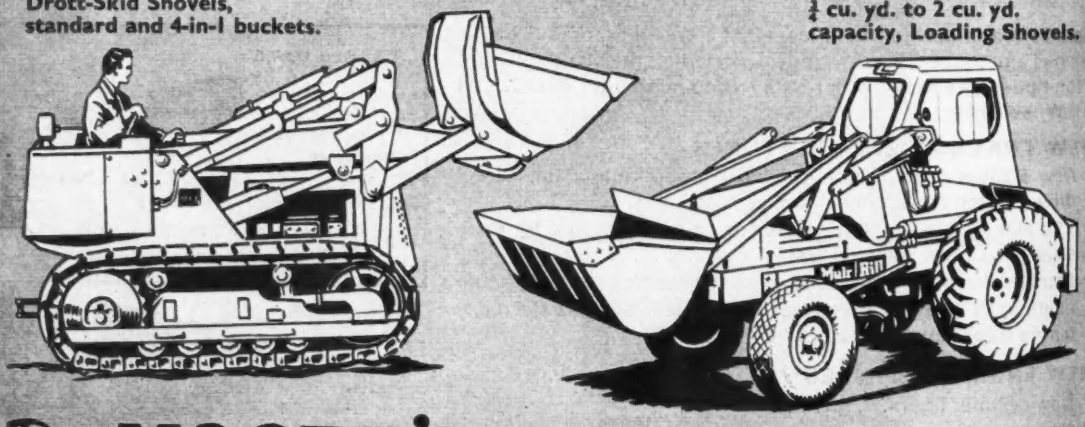


Whitlock Dinkum Diggers.

Ruston Bucyrus Excavators.

Drott-Skid Shovels, standard and 4-in-1 buckets.

¾ cu. yd. to 2 cu. yd. capacity, Loading Shovels.



Ring **MOORE'S** for earth moving machinery hire

MOORE'S PLANT LTD
105-129 MARKFIELD RD. TOTTENHAM LONDON N15.
Grams 'Morplanlim' Southtot London

TOTtenham 0401 (10 lines)

dmM0147

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

(Continued from page 697)

CRANES FOR HIRE.
15cwt. GM Neals Fully Mobile Diesel Cranes, 18ft. Straight and 20/40ft. Telescopic Jibs.
18cwt. Jones KL15 Self-propelled Diesel Cranes, 15/20ft. Straight Channel Jibs.
2-ton Neals Diesel Mobile Cranes, on pneumatics, 28/30ft. Straight Lattice Jibs.
3-ton Neals NM5 Diesel Mobile Cranes, on pneumatics, 30/35ft. Straight Lattice Jibs.
3-ton Jones Diesel Crawler-mounted Cranes, 30/40ft. Straight Lattice Jibs.
4-ton Jones KL44 Diesel Crawler Cranes, 30/45ft. Straight Lattice Jibs.
4-ton Jones KL44 Diesel Mobile Cranes, on pneumatics, 30/45ft. Straight Lattice Jibs.
Smith 21, approx. 10-ton capacity Crawler-mounted Cranes, 70ft. Box Lattice, with 10ft. Fly Jibs also available.
5-ton Coles Mk. VII Diesel Lorry-mounted Cranes, various length Jibs.
10-ton Coles Diesel Lorry-mounted Cranes, various length Jibs.
Hire your Cranes at most competitive rates from the Crane Specialists:
MOORE'S PLANT, LIMITED,
105-129 Markfield Road, Tottenham, N.15.
Tel.: TOTtenham 0401 (10 lines).

LIGHT RAILWAY MATERIAL FOR SALE OR HIRE.
4,000yd. 25lb. B.S. RAIL.
2,000yd. 20lb. B.S. TRACK.
Ruston 16/20-h.p. LOCO., 24in. gauge.
New Lister LOCOS., 18in. to 42in. gauge.
TIPPING WAGONS, ¼yd. to 2yd., various gauges.
FLAT-TOP or PLATFORM BOGIES.
WHEELS and AXLES and AXLEBOXES.
TURNOUTS and TURNTABLES, all gauges.
STEEL SLEEPERS and all RAIL ACCESSORIES.
Maco PRESSED-STEEL LAY-ON TURNTABLES.
Maco PRESSED-STEEL LAY-ON SWITCHES.
Platelayers' TROLLEYS, standard gauge.
M.E. ENGINEERING, LTD.,
457 Finchley Road, London, N.W.3.
Grams: Mengilim, London. Tel.: HAMpstead 7481-2-3.

BULLDOZERS, MECHANICAL LOADING SHOVELS and TRAXCAVATORS, etc. TIPPING LORRIES, 5/7-ton, for HIRE.—HENRY FROUD, LTD., Harrow Manor Way, Abbey Wood, S.E.2. Tel.: WOOlwich 9558-9.

FOR SALE.—We have a few DRAGLINE BUCKETS for Lima or similar machines, 2¼yd. and 2yd., complete with Dressings.
PLANT SALES, LTD.,
25 Castlereagh Street, London, W.1. PAD. 2663/5.

FOR SALE, 107 tons unused Larssen No. 3 SHEET STEEL PILES, 30ft. and 40ft., £38 per ton f.o.l.
DUDLEY VALE, LTD.,
9 Palace Street, London, S.W.1. Tel.: VICtoria 0252.

FOR SALE, Weatherill 2HCRQ SHOVEL, with ¾ cu. yd. Bucket, believed 1957. Offers invited.
WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

CLASSIFIED ADVERTISEMENT RATES:
PLANT AND MISCELLANEOUS
Four lines or less 14/-, and 3/- for every additional line.
Box number 1/- extra.
Display £2 10s. per single column inch.

FOR SALE.
One 54RB EXCAVATOR, complete Face Shovel, Serial No. 22357.
One 33RB EXCAVATOR, complete Shovel and Dragline Equipment, Serial No. 9739.
One 22RB EXCAVATOR, complete Dragline Equipment, Serial No. 20130.
One 17RB EXCAVATOR, complete Dragline and Backacter, 6600 Series.
One Caterpillar D8, Serial No. 17460, complete Caterpillar Winch and Birtley Hydraulic Angledozing Equipment. Overhauled Messrs. Leverton.
One Caterpillar D7, Serial 17A, complete Hydraulic Angledozing Equipment and Caterpillar Winch.
One Caterpillar D7, Serial No. 3T 26779, Caterpillar Winch and Hydraulic Dozing Equipment.
One Drott SHOVEL, Serial No. 6325, fitted reconditioned engine. Overhauled by Messrs. Cripps.
Five new Ford DIESEL ENGINES, Type 592E/AEI, packed in original cases for export.
One Caterpillar 25cc C.C.U.
One N.C.K. FORWARD SHOVEL EQUIPMENT, complete.
One N.C.K. Standard DRAGLINE EQUIPMENT.
Quantity N.C.K. SPARES.
Inspection of any of these machines can be made by prior appointment.
TRACTORS AND EXCAVATORS (EXPORTERS), LTD., Conington, near Peterborough. Telephone: Sawtry 277.

FOR SALE, VR180 TRACTOR, complete with Onions EH13 Scraper, in excellent working condition, price £1,000. Also large stocks of Lima 1201, Cummins L and Vickers SPARES, all new and less 25% on current list prices. Lists on application.—Write Box P.5207, "The Contract Journal."

AVAILABLE FOR HIRE: EXCAVATORS, BULLDOZERS, DUMPERS, MIXERS, Coles CRANES, etc. All classes of LORRIES, including Low-loaders.
AMEY'S AGGREGATES, LTD.,
Lower Wootton, Boars Hill, Oxford. Oxford 35421.

WANTED, a MOBILE QUARRY PLANT, comprising Plate Apron Feeder, Primary Crusher, and with or without Delivery Conveyor.—Full details to CAMBRIAN PLANT CO., LTD., Tetbury, Glos.

STOTHERT AND PITT 28W Vibroll ROLLERS for immediate delivery, £345 each.—ABELSON AND CO. (ENGINEERS), LTD., Tel.: SHEldon 2424.

AXWORTHY OFFER FOR SALE
Caterpillar D9, 18A and 19A TRACTORS
Caterpillar D8 8R, 2U, 13A, 14A and 22A TRACTORS
Caterpillar D7 7M, 3T, 4T and 17A TRACTORS.
Caterpillar D6 44A TRACTOR, new 1960, Caterpillar Hydraulic Dozer. Excellent condition (South Wales), £5,500.
Caterpillar D4 7J, 2T and 6U TRACTORS.
Caterpillar 933, 955, 977, HT4 and No. 6 TRAXCAVATORS.
Caterpillar DW20 TRACTOR SCRAPERS (three).
Caterpillar DW21 MOTOR SCRAPERS (nine), £7,500 each.
Caterpillar 619 MOTOR SCRAPERS (two), £10,500 each.
Caterpillar 631 MOTOR SCRAPERS (four).
International 15/20yd. PAYSCRAPERS (three), £5,000 each.
Euclid S18 MOTOR SCRAPERS, G.M. Engines.
International BTD6, TD9, TD14, TD18 and TD24 TRACTORS.
International BTD6, TD9, TD14 and BTD20 Drott SKID SHOVELS.
Allis-Chalmers HD7, HD10, HD14, HD19 and HD20 TRACTORS.
Allis-Chalmers HD5G and HD6G TRACTOR SHOVELS.
Michigan 55A, 75A, 85A, 125A and 175A WHEELED SHOVELS.
Euclid 43FDT58W BOTTOM DUMP WAGONS and 8V LOADER.
Euclid 81FD 9.7yd REAR DUMP TRUCKS.
AXWORTHY AND COMPANY, LTD.
(Drotts for Hire),
Straight Road, Old Windsor, Berks.
Telephone: Windsor 3434 or 3384.
Telegrams: Axworthy, Windsor.

AIR COMPRESSORS for SALE.—Bellis and Morcom 2,450 c.f.m., 100 p.s.i., 550-h.p. motors 500 c.f.m. unused Holland Rotary; 525 c.f.m. Holman Type 1605 Broomwade 400 c.f.m. EH245, 300 c.f.m. EH240; 200 c.f.m. D23; 80 c.f.m. D21, new 1950; also numerous others of all makes; and AIR RECEIVERS from 1ft. to 9ft. dia., 100lb. to 1,000lb. w.p. — FRED WATKINS (ENGINEERING) LTD., Coleford, Glos. 'Phone: Coleford 2271/3.

FOR COMPRESSOR HIRE SERVICE. From 1-Tool to 12-Tool (70 c.f.m. to 625 c.f.m. f.a.d.). Lorry-mounted and Portable. Full range of Pneumatic Tools.—HUBERT C. LEACH, LTD., High Street, Cheshunt, Herts. Tel.: Waltham Cross 25161 (5 lines).

FOR SALE, One 10/15cwt. Electrically driven Ace HOIST, complete with 60ft. of Guide Rail. Brand new, purchased April, 1961.—Offers to Box P.5277, "The Contract Journal."

FOR SALE, 19RB and C16 MICHIGAN EQUIPMENTS, £300 each. — Apply THOMAS BOW, 45 Lamartine Street, Nottingham.

URGENTLY REQUIRED, SHEET STEEL PILING, any quantity and length considered.
Write Box G.G.393, "The Contract Journal."

ROAD ROLLERS
FOR HIRE OR SALE
10 CWT. to 10 TONS
with or without drivers
HALTRAC LIMITED
Bourne Works, Weimar Street, S.W.15
PUTney 4185

"CAUDLE" LTD.
Hire or Sale
MOBILE CRANES
D.7 TRACTORS with DOZERS
LINKBELT L.S.90 ¾yd. DRAGLINE
TD.18 with HYDRAULIC ANGLE DOZER
ONIONS 9yd. SCRAPERS
MORRIS VERSATILE 5 ton CRANE
10 R.B. EXCAVATORS
CATERPILLAR D.4 ANGLE DOZERS
PARKER PLANT 10 cwt. HOISTING WINCH, ELECTRICALLY DRIVEN
FORD DIESEL 7 ton LORRIES
4yd. LE TOURNEAU SCRAPER
Coventry Road • Sheldon Birmingham 26.
TELEPHONE: SHELDON 5171 (5 lines)

SHAWNEE POOLE DUMP TRUCKS FOR HIRE
We operate the largest hire fleet of these machines in England; consult us for all your requirements.
Our hire fleet also includes D.8's, D.7's, D.4's with Scrapers, Drott Shovels, Excavators all sizes, Cat. 977 Traxcavators and 25 ton Low Loaders.
PLANT HIRE OR CONTRACT
IRVING AINSWORTH (MORLEY) LTD.
MORLEY Nr. LEEDS
Phone: MORLEY 1800-1-2

Ready Mixed Concrete
TRUCK MIXERS and AGITATORS FOR SALE
STANDARDISATION OF FLEET
We have a number of various types and capacities for immediate sale — all clean and in working condition. Prices of complete units from £1,200.
Please write
General Transport Manager
Ready Mixed Concrete Limited
2-3 The Sanctuary, London, S.W.1

1 man can do the work of many — quicker!

with the
Massey-Ferguson '203'
Tractor Digger Shovel
★ Immediate delivery
★ Generous part exchange allowance
★ Favourable Sale or Hire Terms
★ Demonstrations arranged
W.H.&J. Rogers (ENGINEERS) LTD. GREAT BARFORD BEDFORD Telephone 201
RING
Gt. Barford 201
TODAY
Ask for
Industrial Sales Dept.

PLANT SALES **Holdsworth LEEDS** PLANT HIRE
HOLDSWORTH (Yorks) LTD. 10 PARK SQUARE, LEEDS 1. 'Phone: 32861

LORRY-MOUNTED **CRANE HIRE**
Capacities: 4 · 5 · 6 · 10 · 15 · 20 · 22½ · 25 tons

JIB LENGTHS: 25' to 140'
FREDERICK ATTWOOD LTD.
257-273 Wood Street,
Walthamstow,
London, E.17
COPpermill 1151 (7 lines)

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

MUST BE SOLD.
10RB: 11000 Series, Dragline, £875; 13000 Series, F/S, £1,250; 17000 Series, Skimmer/Backacter, £1,200.
19RB: 5000 Series, F/S, £1,300; 10000 Series, Backacter, £1,375; 11000 Series, Dragline, £2,150; 12000 Series, Dragline and Skimmer, £2,400; 18000 Series, Skimmer/Backacter, £2,500.
22RB: 16000 Series, Dragline, Skimmer/Backacter; 20000 Series, Dragline, wide tracks, £3,750 each.
24RB: 14000 Series, F/S, £2,800; 16000 Series, Dragline, £1,650.
33RB: 19000 Series, Dragline.
43RB: 2000 Series, Dragline, £1,750; 8000 Series, Dragline, £3,500.
54RB: 9000 Series, Electric, F/S, £8,500; 22000 Series, F/S and Dragline, £16,500.
100RB: 8000 Series, Electric, 3½yd., F/S, £12,000.
N.C.K. 304: 31000 Series, F/S, £2,650; 1800: Dragline, £2,750; 3100: Crane, £3,650.
Smith 21, new 1956, F/S, £2,650.
Lima 802, 1201 and 2400:Dragline or F/S or Crane.
Lima 2400, 110-ton Cranes, new 1956 and 1958.
D7 3T, 11000 Series, Cable Angledozer and Winch, £2,250.
D8 2U, 7000 Series, Hydraulic Angledozer and Winch, £1,950.
D9, 19A, 1000 Series, Dozer and C.C.U., £6,950.
7-ton Anderson-Grice 1-motor Electric DERRICK CRANE, 120ft. Jib, £3,250.
Coles-Thornycroft Mk. 7, Series 7, with Ford 4D in Crane, £2,550.
Lorain MC3 MOTOCRANE, two Cummins Diesels, 70ft. Boom. First-class, £4,400.
Please write to:
GREENLANDS CONSTRUCTION CO.,
4 Keppel Spur, Old Windsor, Berks.
Or telephone. Windsor 61937.

FOR SALE.
Vickers Vigor 1000 Series TRACTOR, as new, with Angledozer Equipment and Winch, £2,500.
Vickers Vigor 18C Model TRACTOR, suitable for spares, £250.
Fiat 55LI TRACTOR, with Angledozer, bought July, 1956, £850.
RAPID LOADERS, LTD.,
152 Oxford Street, Bilston, Staffs. Bilston 41751/5.

DELMAG Diesel PILE HAMMERS for HIRE . . . Models D5, D12 and D22, available with rope suspended leaders and leg guides, suitable for driving any section of piles. Also G17T Delmag PILE FRAME with Turntable and Diesel Winch.
DUDLEY VALE, LTD.,
9 Palace Street, London, S.W.1. Tel.: VICtoria 0252.

URGENTLY WANTED, 19RBs, 22RBs, 33RBs and N.C.K. 304 EXCAVATORS, fitted with Dragline or Face Shovel Equipments. Machines must be in good condition. Immediate inspection and settlement. Write GRAYSTON PLANT AND ENGINEERING CO., LTD., 32 Stewarts Road, S.W.8. Macaulay 6688.

FOR SALE, Five Challenger I BULLDOZERS, with Gardner 3-cyl. Engine, 60/65-b.h.p., Power Winch at rear, year 1954, first-class condition. Contact: C. C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, London, E.3. Tel.: ADY 5691-3.

PLANT HIRE: Earthmoving, Site Clearance, Excavations for Roads, etc.
DOUGLAS HAMILTON, LTD.,
Tunbridge Wells. Telephone: Southborough 1538.

LABORATORY EQUIPMENT for SALE. Load Frame, Speedy Moisture Testers, Drying Ovens, etc., etc. HAWLEY PLANT, LTD., Hawley Road, Dartford 21166.

SELECTED STOCK ITEMS.
J.C.B. 4, new 1960, three Buckets, £1,850.
Dinkum Major DIGGER/POWER SHOVEL, 1958, £1,450.
Dinkum Major DIGGER/POWER SHOVEL, 1959, £1,500.
Dinkum Major DIGGER/COUNTERWEIGHT, 1959, £1,150.
Benford W MIXER, with Weighbatcher and Dragscraper, electric drive, little used, 1960, £975.
Allen T6K LORRY CRANE, Diesel, 30ft. Jib, £2,750.
Chaseside 800TC, 1959, 1 cu. yd. Bucket, cab, £1,450.
Jones KL22 Diesel CRANE, pneumatics, 24ft. Jib, £775.
Rapier 8½-ton Diesel/Electric CRANE, £3,750.
Neals NM 2-ton Diesel CRANE, pneumatics, 30ft. Jib, £1,150.
Rapier 410 EXCAVATOR, Diesel, Skimmer, Trencher and Shovel, £950.
10RB EXCAVATOR, 11419, Diesel, fitted Trencher, £700.
Priestman Wolf A316S, Diesel, 18in. tracks, Skimmer/Backacter, £750.
Liner 4ft. 6in. ROLLER PAN MIXER, Diesel, overhauled, £225.
Road Machines 14 cu. ft. Twin WEIGHBATCHER, £125.
C.P.T. 3-tool Diesel COMPRESSOR, electric start, pneumatics, £450.
C.P.T. 1-tool Diesel COMPRESSOR, Trailer, £200.
Holman 2-tool Trailer COMPRESSOR, Dorman 2DL Engine, £275.
Greens 8cwt. Vibrating ROLLER, 1959, water gear, £265.
Sykes 5in. Portable PUMP, Diesel, 45,000 g.p.h., £325.
Chaseside Diesel ROPE SHOVEL, electric start, £275.
Bray BL25 Crawler SHOVEL, 1 cu. yd., 1957, £1,450.
Second-hand Concrete Mixers, all sizes, from £40.
WILLIAM R. SELWOOD, LTD.,
Chandler's Ford, Hants. 'Phone 2981.

PLANT FOR SALE.
J.C.B. Hydra-Digga/Loadall 65, new 1959, 90 per cent condition, £1,450.
Case Model 800, new 1961, 1½yd. Bucket, first-class, £5,700.
Caterpillar 955E, Side Dump, new 1959, tracks, just overhauled costing £600, £5,100.
Caterpillar 955H, Side Dump, new 1960, track overhaul 1961, £5,500.
Caterpillar 922, 4-wheel drive, new 1961, 880 hours, £5,500.
LAND-ROVER, 1959, Long-wheelbase, Diesel, resprayed, £550.
ALAN R. DAVIES, LTD.,
20 Whiteladies Road, Bristol, 8. Tel. 38418.

FOR SALE.
Due to the completion of contracts, the following Public Works Contractors' Plant is available:
Two TD14 2½yd. International TRAXCAVATORS, in good condition. Serial Nos. 44740 and 45356.
Three 3 cu. yd. Aveling-Barford Diesel DUMPERS, in working order, new 1954 and 1955.
SCOTTISH TARMACADAM & ASPHALTE CO., LTD.,
44 Bilbao Street, Glasgow, C.5.

FOR SALE, 4,000lb. capacity Clark Petrol-driven FORKLIFT TRUCK, 9ft. lift.—WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

WANTED immediately, DRAGLINE EQUIPMENT, with 40ft. jib, for Smith 21.
Write Box P.5245, "The Contract Journal."

WANTED, D6, complete with Hydraulic Dozer, six-cylinder model.
Write Box P.5276, "The Contract Journal."

VALES PLANT REGISTER, LTD.
OFFER FOR IMMEDIATE SALE:
EXCAVATORS:
SMITH 8, December, 1952, Backacter, good working order, £675.
SMITH SUPER 10, 1950, Dragline, good working order, £850.
10RBs, 1953/54, Skimmer and Backacter or Dragline, £1,000 each.
19RB, 18000 Series, any one equipment, £2,700.
BLAW KNOX BK50s, several available. Price and details on application.
J.C.B. HYDRA-DIGGA/LOADALL 65, January, 1960, £1,500 o.n.o.
N.C.K. 304s, Draglines, several available. Price and details on application.
22RB, 20000 Series, Dragline, good, £3,800.
33RB, 19000 Series, Dragline, £6,000.
LIMA 802, 1949, F/S, very good, £6,500.
54RB, 22000 Series, F/S and Dragline, very good condition, £17,750.
LIMA 2400, 120ft. Dragline, new December, 1961, good working order, £27,500.
FOR A COMPREHENSIVE LIST OF PLANT FOR SALE AND HIRE — SEND FOR VALES FREE PLANT REGISTER.
Further details: 14 Lower Grosvenor Place, London, S.W.1. VICtoria 7531, 3501, 8080, 9886 (15 lines).

FOR SALE, LOW-LOADING TRAILERS, from 3 tons to 12 tons; Lister-Air Pumps COMPRESSORS, equal to new, from £425; TANKERS, from 100 galls. to 950 galls.; GENERATING SETS, from 1½-kVA upwards, Diesel and Petrol driven; large stocks of ex M.O.S. Equipment. Send for lists.—S. T. BELTON (TRACTORS), LTD., Tower Road, Boston, Lincs. 'Phone 2590/2690.

FOR SALE, Babcock-Weitz G15HV-A Rail-mounted TOWER CRANE, Serial No. D37, 400/440-V, 65ft. 7in. Saddle Jib, lift height 42ft. 7in., complete with motor-driven Cable Winder and 50yd. Cable. Concrete Counterweights and Base Ballast. New February, 1961. Price £3,000. May be seen working at Gloucester and available in 2/3 weeks.—JAMES LONGLEY AND CO., LTD., Crawley 21221.

WORKING in the Lancs. and Cheshire area? Woolfenden's are your MOBILE CRANE people. Light or heavy Lorain, Michigan, Quickway, Weeks. Lifts up to 30 tons. Boom lengths to 150ft.
WOOLFENDEN'S,
Anfield, Liverpool, 4. Tel.: Stoneycroft 3755/9007.

FOR SALE, Hadfield and Jacks CONE CRUSHER, No. 329, Size 6, Style A, 80 tons per hour, 2½in. down. In very good condition. Has not been used for last six years.—JOHN WILLIAMS AND CO. (CRWBIN QUARRIES), LTD., 4 Queen Street, Carmarthen. Telephone 7781.

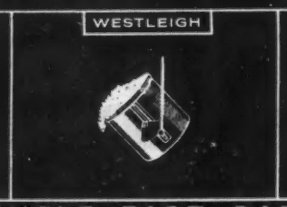
FOR SALE, Choice of two Bristol Duplex LOADER/ANGLEDOZERS, 1960 models, in as new condition, guaranteed, £1,250 each.—H. A. SAUNDERS, LTD., 14-20 The Butts, Worcester. Tel.: Worcester 26651.

RANSOMES AND RAPIER 410 EXCAVATOR, fitted with Perkins P4 Diesel Engine, Skimmer and Backacter Equipment, in good working order, £485.—L. W. VASS, LTD., Ampthill, Bedford. Telephone Ampthill 3255.

WANTED, Good Second-hand Massey-Ferguson DIGGER, with Front-end Loader. Must be good condition. No dealers.
Write Box P.5247, "The Contract Journal."

WANTED, DRAGLINE EQUIPMENT for Priestman Cub Mk. V.—Write Details and price to Box P.5266, "The Contract Journal."

HERE IT IS



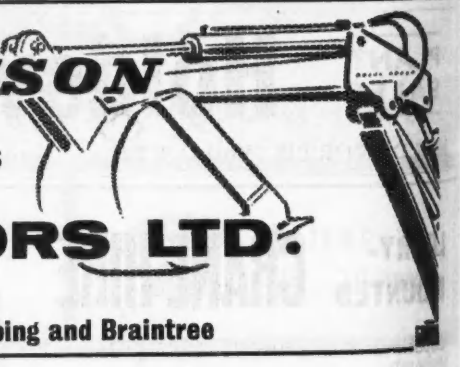
SIMPLE - FAST - SAFE
WESTLEIGH DEVELOPMENT COMPANY LIMITED
73 LEADENHALL STREET, LONDON E.C.3
Telephones: AVEnue 9876 & 1120

BIG CRANE EXCAVATORS
Several for Sale
A.R.C. MOTOR Co. Ltd.
REDHILL WORKS, ARNOLD, NOTTINGHAM
Telephone: 26-3331/5

SLOGGETTS PLANT HIRE
ROLLERS OF ALL TYPES
2 Burtons Road, Hampton Hill, Middx.
Telephone: Teddington Lock 1138/9

HEAVER'S PLANT HIRE (CHICHESTER) LTD.
OFFER FOR IMMEDIATE HIRE
EXCAVATORS
TRACTOR SHOVELS
MOBILE CRANES
ROLLERS
COMPRESSORS
CONCRETE MIXERS
DUMP TRUCKS
HOISTS
BULLDOZERS
SCRAPERS
DUMPERS
TRENCH SHEETS
CHICHESTER DEPOT
SHOPWYKE ROAD, CHICHESTER, SUSSEX
Phone: CHICHESTER 2929/5967
PORTSMOUTH DEPOT
FISHER'S GROVE, FARLINGTON, PORTSMOUTH, HAMPSHIRE
Phone: COSHAM 76968/9

Break New Ground with
MASSEY-FERGUSON
WE ARE THE INDUSTRIAL EQUIPMENT DISTRIBUTORS FOR ESSEX & IN HERTS
Ask us to demonstrate Massey-Ferguson earth moving equipment on your site



EASTERN TRACTORS LTD.
SPRINGFIELD · CHELMSFORD · ESSEX · Tel: 4731
BISHOP'S STORTFORD · HERTS · Tel: 1575 and at Epping and Braintree

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

FOR SALE.
One Caterpillar D4, 2T Series, L.P.C. Dozer and Winch, £875.
One Hanomag K90 base machine and Winch, 1954, £1,100.
One Caterpillar HT4 SHOVEL, with Ripper and Blade, £2,250.
One Priestman Wolf 111A, 6000 Series, Skimmer/Backacter, £1,400.
One Priestman Wolf 111A, 7000 Series, Skimmer/Backacter, £1,850.
One Smith Super 10, 1800 Series, Skimmer/Backacter, £1,500.
One Neals 2-ton CRANE, Tyne N, ex Council, 1951, £675.
One Le Tourneau 12ft. Tandem SHEEPSFOOT ROLLER, £425.
One Blaw Knox 12ft. SHEEPSFOOT ROLLER, unused, £525.
One Euclid S7 Motorised SCRAPER, 7 cu. yd., 1958, £3,250.
One Le Tourneau Model X SCRAPER, 4 cu. yd., £275.
One Blaw Knox 12 cu. yd. SCRAPER, unused, £2,500.
One Blaw Knox 9 cu. yd. SCRAPER, unused, £2,200.
One Wallis and Steevens 3-ton ROLLER, Petrol, £225.
One Aveling-Barford 3-ton ROLLER, ex Council, £495.
One Dixon 25/30cwt. ROLLER, Petrol, electric start, £250.
One Muir-Hill 10B DUMPER, P6 Engine, £275.
One Clipper Consawmatic SAW, little used, £700.
One Allen-Parsons 12/21 TRENCHER, 15in. Buckets, Diesel, £1,100.
CRESCENT PLANT,
209 Crescent Road, Barnet, Herts. Tel.: Barnet 2309.

FOR SALE.
Drott 4-in-1 SHOVEL, B6K3, 1959 machine, £1,800.
Drott SKID-SHOVEL, B6K3, 1959 machine, £1,650.
Drott SKID-SHOVEL, B6K3, 1957 machine, £1,450.
Priestman Wolf EXCAVATOR, with Skimmer and Backacter, small repair required, wide track, electric start, Type IIIA, 1953, £625.
Bray Dual Loader 1yd. SHOVEL, 1957, £525.
Weatherill 4H 1yd. SHOVEL, Two-way Loader, £625.
Broomwade COMPRESSOR, 1-tool, Perkins P3, complete, late type machine, £250.
Air Pumps COMPRESSORS, 2-tool, fast tow, complete and in first-class condition, £360.
J.C.B. EXCAVATOR, 1956, good tyres, £400.
Exchanges. Hire Purchase arranged.
N. E. FIELDS,
Forest Edge, Ringwood Road, Ferndown, Dorset.
Telephone: Ferndown 837.

FOR SALE.
Bulldmaster 150 TOWER CRANE, new 1953. Capacity 20cwt. at 59ft. to 50cwt. at 23ft.
Schwing KTK25W Climbing TOWER CRANE, Luffing Jib. Capacity 28cwt. at 66ft. to 55cwt. at 33ft. Used for demonstrations only. Any reasonable offer accepted.
Write Box P.5264, "The Contract Journal."

FOR SALE. Thwaites Multi-Skip DUMPER, new November, 1960, Petter Diesel Engine, complete with two Skip Stands, one 10 cu. ft. Skip and one 18 cu. ft. Skip, excellent condition, £650.—Write Box P.5261, "The Contract Journal."

FOR HIRE in Leicestershire and adjacent counties, Coles and Hydrocon MOBILE CRANES and J.C.B. EXCAVATORS.—CREESE PLANT HIRE, Thurmaston, Leicester. Syston 2932/3.

WANTED. ALL TYPES OF CLETRAC TRACTORS, any condition. State Serial No. and price required.—C. J. THORNE AND CO., LTD., Uckfield, Sussex. Telephone: 178 (3 lines).

NEW PLANT—EX STOCK
Stothert and Pitt 28W VIBROLLS.
Stothert and Pitt 32RD VIBROLLS.
Liner Roughrider DUMPERS.
Sherman TRENCHER.
Stothert and Pitt MIXERS.
Broomwade WR120 COMPRESSOR.
Broomwade CONCRETE BREAKERS.
Arden 4/3 MIXERS.
M SCOPE PIPEFINDER.
TREMBATH DEHUMIDIFIER.
GREENHAM EQUIPMENTS, LTD.,
Clayton Road, Greenford, Middx. Tel.: VIKing 3651.

FOR SALE.
10RB, 10000 Series, with Dragline, Skimmer and Backacter, or any one equipment.
15in., 18in., 24in. and 30in. Hoe type TRENCHING BUCKETS for 10RB, new.
10RB DRAGSHOVEL DIPPER HANDLES, unused.
10RB SKIMMER BUCKET for Power Trip, unused.
10RB Set of RECONDITIONED TRACKS.
3VRON CYLINDER-HEADS, overhauled.
10RB Reconditioned TRUCK FRAME.
$\frac{3}{8}$ Westwood Double Rope GRAB, overhauled.
19RB and 22RB 10ft. CENTRE SECTION for Dragline Boom, new.
19RB and 22RB 24in. Hoe type TRENCHING BUCKET, new.
One 3VQBN ENGINE for 19RB or 20RB.
VRON and VQBN INJECTORS.
10RB Front "A" FRAME, complete, for Dragshovel or Skimmer.
10RB FAIRLEAD, complete with bracket and bolts.
CHARLES LIMB AND CO., LTD.,
Clayland Works, Saxilby, Lincoln. Tel.: Saxilby 347-8.

FOR HIRE AND SALE: ARMSTRONG-WHITWORTH PNEUMATIC POKER-TYPE CONCRETE VIBRATORS.
We are distributors for all types of Armstrong-Whitworth Pneumatic CONTRACTORS' TOOLS, including Concrete Breakers, Light Picks, Clay Diggers, Rock Drills, Pumps, Backfill Rammers and Tampers, Hoses and Accessories. We hold a large stock of Spares and can give a 48-hour repair service. New and Second-hand Air Pumps COMPRESSORS for SALE. Send for list.
HUBERT C. LEACH, LTD., 131 High Street, Cheshunt, Herts. Tel.: Waltham Cross 25161 (5 lines).

MASSEY-FERGUSON INDUSTRIAL DISTRIBUTORS.
FOR SALE:
One only Massey-Ferguson 702/710 Tractor DIGGER/SHOVEL, in excellent order throughout. Can be seen working. Choice of Buckets. Price £1,200.
One only 1954 TEF Diesel Ferguson TRACTOR, complete with Dinkum Digger Attachment and counter balance weights, together with two Buckets and £75 worth of spare parts, £500.
COLLEGE MOTORS,
Ashton Gate, Bristol, 3.
'Grams: "Colmotrac." Tel.: Bristol 662266 (3 lines).

BARBER-GREENE 44C Vertical Boom DITCHING MACHINES, with side conveyor for loading the extracted road material into trucks. These machines are in first-class mechanical condition and have had very little use. Price £1,000 each, ex works.
400-gallon new DRINKING WATER TANKS, mounted on good second-hand trailer with 1100 x 20 tyres. Price £175 each, ex works.
HAULGO, LTD., West Street, Havant, Hants.

GABRIEL for PLANT TRANSPORTATION anywhere. A telephone call will get you the most competitive rates in London for your LOW-LOADER needs; long or short hauls undertaken with speed and efficiency.—Ring now: Howard 4351-5. C. GABRIEL, LTD., Palmers Lane, Enfield, Middlesex.

NEW Perkins P3 30-h.p. DIESEL ENGINE, with Ford V8 Bell Housing, fitted starter and dynamo. Still in makers' packing case. Year 1957. £185. NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull. Tel.: Kirkella 57967 and 57968.

MANCHESTER AREA.—FOR SALE, BTD6 Drott SHOVEL, with 4-in-1 Bucket. Good buy if machine is required for immediate work.—ROSEHILL GARAGE (DENTON), LTD., Manchester Road. Tel.: Denton 2926 and 2017.

CONTRACTORS' PLANT FOR HIRE.
New Motorised PAYSCRAPERS for immediate HIRE (22 cu. yd.).
BTD6, TD14 and TD18 TRACTORS, fitted with Drott Skid Shovels.
BTD6, BTD20, TD9, TD14, TD18 and TD24 TRACTORS, with Bulligraders and/or Scrapers.
TD18 TRACTORS, with Pipe-laying Equipment.
10RB, 19RB and 22RB EXCAVATORS, with all Equipments.
First-class machines and operators, backed by finest field service in Great Britain.
Generous transport terms to all parts of England.
LUMLEY (PLANT), LTD.,
Stratford-on-Avon 4242, Ashford (Middx.) 4191, Cardiff 33472.

MACHINERY FOR SALE AND HIRE.
10/15cwt. G.F. Diesel-driven DUMPERS.
15cwt. Liner Diesel-driven DUMPERS.
15cwt. Thwaites Diesel-driven DUMPERS.
1-ton Barford Diesel-driven DUMPERS.
30cwt. Thwaites Diesel-driven DUMPERS.
30cwt. Benford Diesel-driven DUMPERS.
$1\frac{1}{2}$in. to 3in. Centrifugal and Lift and Force PUMPS.
C.P.T. 2-tool COMPRESSOR, Diesel driven.
M.R. Hydraulic SCRAPER for Bristol Tractor.
County CRAWLER TRACTOR.
20-ton PORTASILO, in good condition.
SOUTH MIDLANDS ENGINEERS,
Shipston-on-Stour. Telephone 612 and 624.

FOR SALE.
1960 J.C.B. 4 Hydraulic EXCAVATOR, with two Buckets, $\frac{3}{4}$ cu. yd. Front Shovel, carefully maintained. It's a honey! £1,950.
ERNEST DOE AND SONS, LTD.,
Industrial Division, Ulting, Maldon, Essex.
(Tel.: Hatfield Peverel 311; (night) 319);
Therapia Lane, Mitcham Road, Croydon, Surrey
(Tel.: Thornton Heath 4095 and 4844).

WANTED, WANTED, WANTED.
Heavy EARTHMOVING MACHINES and EQUIPMENT of all types. Modern machines preferred, others considered, immediate inspection; spot cash settlement. Write, giving full details and location, to A.R.C. MOTOR CO., LTD., Redhill Works, Arnold, Nottingham. Telephone: Nottingham 263331/5.

FOR SALE. VR180 TRACTOR, just spent £1,200 on new tracks, sprockets and wheels, also factory reconditioned engine just fitted, newly painted, done no work since overhaul. Price £850.—BATCHWORTH (CONTRACTORS), LTD., 90 Leeds Hill, Oulton, nr. Leeds. Telephone: Wakefield 5773.

FOR SALE. 10RB EXCAVATOR, 20000 Series, with Skimmer, Backacter and numerous accessories. Specimen machine. One driver since new. Good reason for selling.—ROBT. GALLACHER, LTD., Builders, Blackhill, Consett, Co. Durham.

RAILS, RAILWAY LINE ATTACHMENTS, RAILWAY SLEEPERS of all grades and CROSSING TIMBERS from 8ft. 6in. to 20ft. long for SALE. Deliveries ex stock. State use required for.—F. HIRD AND SONS, Armthorpe, Doncaster. Telephone: Armthorpe 339.

FOR HIRE IN THE MIDLANDS: 10-ton Lorry-mounted CRANES, jibs to 75ft.—L. NELSON AND CO., LTD., Lugtrout Lane, Solihull, Warwickshire. Telephone: Sheldon 4005.

FOR IMMEDIATE SALE or HIRE. 20-ton SCOTCH DERRICK CRANE, with 150ft. jib and 400/440-V 3-phase 50-cycles motors. Gabbards and Bogies for same also available.—Write full details to Box P.5246, "The Contract Journal."

WANTED FOR CASH
Benjo Rammers, Warsop Breakers, Vibratory Rollers, Sludge Pumps, any condition. Will collect.
METALWARE, 62 High St., CROYDON
TELEPHONE: KELVIN 3387

4/3 MIXERS 'Half-Bag'
FOR HIRE
30/- PER WEEK
PETROL OR ELECTRIC—1 PHASE
JOHN MACNAMARA & CO. LTD.,
Bush Rd., Deptford, London, S.E.8 Bermondsey 3275-1435

HIRE
PLANT HIRE & SALE
Excavators
Bulldozers
Scrapers
Mixers
Pumps, etc
★
Spares from stock.
TAYLOR KENT
WEYDOWN ROAD
HASLEMERE, SURREY
Telephone: HASLEMERE 2294/5

WILSON PLANT HIRE LTD
Depot...
WEEDON ROAD
NORTHAMPTON
Phone: 4653 & 4654



change for the BETTER
PRIESTMAN WOLF EXCAVATORS
NEW AND LATE MODELS WITH
ALL TYPES OF EQUIPMENT

Remember



LEEDSALL DUMPER TRAILER
Most muck moved for least money spent!
BUILT BY HUDSON LEEDS
ROBERT HUDSON LIMITED
RALETRUX HOUSE (P.O. BOX 55) LEEDS 11.
Telephone: Leeds 20004 Grams: Raletrux Leeds,
London: 30-34 Buckingham Gate, S.W.1
Telephone: Abbey 7127

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

ELLIOTT BROS. (WORTLEY), LTD.
N.C.K. 304, Backacter, Thornycroft NR6 Engine, former property of Corporation, £2,600.
Ruston 21, ¾yd. Dragline or Crane, £1,100.
10RB, any equipment, VRON 3-cyl. (hand start), £600.
10RB, any equipment, VRON 3-cyl. (elec. start), £650.
N.C.H. ½yd. DRAGLINE CRANE, Backacter or Face Shovel available, £450.
Ransomes and Rapier 423, Dragline, £650.
8-ton ROLLER, Barford-Perkins, £550.
Smith 2/10s, any equipment, choice of six, £200-£500.
Caterpillar D6, 3cyl., Cable Angledozer, £600.
Fiat 55L. Angledozer and Winch, £600.
MULEDOZER, Fordson 4D, Hydraulic, Cab, lights, etc., £300.
24 x 14 Foster CRUSHER, automatic lubrication, £500.
Heavy Duty SCREEN to fit above, 8ft. x 4ft. (2-deck), with motor, £450.
J.C.B. Mk. 1, £500.
Two 1yd. and 1½yd. Self-dumping GRABS, £200 each.
Meadows DIESEL ENGINE, 6-cyl., seen running, £150.
A.E.C. DIESEL ENGINE, 6-cyl., seen running, £100.
Leyland DIESEL ENGINE, 6-cyl., £100.
14/10 Blaw Knox Diesel High-discharge MIXER, £100.
Coapy CONCRETE PLACER, with Pipeline and Compressed Air Cylinder and Discharge Box, £1,000.
Fowler Challenger D/D WINCH, £90.
Sulzer 4 stage 6in. PUMP, electric, £120.
Simplex 24in. Diesel LOCO., £175.
All Smith 2/10 SPARES and EQUIPMENTS.
Drott TEETH. 30s. each.
35-32 and 16RB FACE SHOVEL EQUIPMENTS.
N.C.K. SPROCKETS, DOGS and TRUCK FRAME.
Fowler Challenger III and VF SPARES.
Caterpillar D6 3-cyl. SPARES.
All machines in full working order, and can be tried at these works.
Glen Works, Deepcar, near Sheffield.
Telephone: Stocksbridge 3276.
Deepcar is six miles west of Sheffield, on A.616 (Woodhead Road).

SLOGGETTS PLANT HIRE.—Large quantity of ROADFORMS, most sizes, now available for HIRE. Contact us for HIRE of all types of CONTRACTORS' PLANT. — 2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

TRAXCAVATORS for HIRE. Caterpillar 977, 955. All in first-class condition, with experienced operators.—MOBILE HAULAGE, LTD., 230 Tottenham Court Road, London, W.1. Tel.: Langham 7833/5.

PLANT FOR SALE.
Seven Stothert and Pitt 7/5 MIXERS, with 5/1 Lister Diesel Engines. Extremely clean machines, from £50 each. Various other machines.
One Sykes 4in. WATER PUMP, with Ruston 2VSH Engine, complete with Hoses, £175.
25/30cwt. FOOTPATH ROLLER, by Dixon Hawksworth, Ltd., powered by Ford 10 Engine, 1957 machine, Sprinklers, etc., £225.
One C.P.T. MOBILE COMPRESSOR, Ruston Engine, 110 cub., 3VSH, £150.
Chaseside ½yd. Rope SHOVEL, P6 Diesel, 1200 x 24 twin rears, 1951 machine, in 100 per cent. working order, £225 o.n.o.
Platypus CRAWLER DOZER, Perkins P4 Diesel Engine, complete with cab, good working order, £295.
Two 15cwt. MOBILE HOISTS, by British Hoist and Crane Co., Petter AVA1 Diesel Engine, Reconditioned. £75 each.
David Brown TRACTOR UNIT, on pneumatic tyres, fitted Power Logging Winch, £195.
Aveling-Barford 4-ton Diesel L4 ROAD ROLLER, ex Ministry, very good condition, £525.
One D6 Caterpillar ANGLEDOZER, 3-cyl. engine, ex Ministry. Cheap to clear.
One D4 Caterpillar ANGLEDOZER, 1951 machine, complete with Winch, etc., in 1956 condition.
4-wheeled MOBILE SITE OFFICES, some complete with drawing table, etc. Would be a credit to any site, from £75 each.
Bristol 22 DOZER, reconditioned P3 Engine. Machine completely overhauled, track and blade in very good condition.
G. H. DUNNING.
Ballards Yard, High Stret, Edgware. Edgware 2572.
Open week-ends.

CONTRACTORS' PLANT FOR HIRE. EXCAVATORS, TRAXCAVATORS, BULLDOZERS, 7-ton Diesel ROLLER, MONORAIL TRANSPORTER EQUIPMENT, VIBRATORY ROLLERS, COMPRESSORS, MIXERS, PUMPS, etc.—Plant Dept., WM. TOWNSON AND SONS, LTD., Higher Swan Lane, Bolton. Tel.: Bolton 62121.

SEVERAL Broomwade Model RB55 Heavy Duty CONCRETE BREAKERS, suitable for 1¼in. and 1½in. steel, £10 each for quick clearance.—Inspection: THOS. W. WARD, LTD., Thames Road, Silvertown, E.16, or telephone Temple Bar 1515—Ext. 105.

MOBILE CRANES FOR SALE, HIRE and SPARES. Coles, Ransomes, Morris, etc.—ROBERT DIXON, LTD., Authorised Coles Repairers, Hunsdon, Herts. Telephone: Standstead Abbots 301/3.

MESSRS. R. CRIPPS AND CO., LTD., have the following Items of Used Plant for SALE:
International TD24 TRACTOR, with Front Winch Cable-operated Bullgrader and rear Onions Model 18 C.C.U. Fully overhauled and fitted with rebuilt engine. £4,500.
International TD9 TRACTOR (92 Series), fitted with Drott 1½ cu. yd. 4-in-1 Equipment, 1960 machine, in immaculate condition, £5,000.
International BTD6 TRACTOR, fitted with Drott 4-in-1 Equipment. Fully reconditioned and guaranteed for three months. £2,850.
International BTD6 TRACTOR, fitted with Drott Equipment and Heavy Duty Bucket, 1961 machine, in excellent condition, £2,000.
International BTD6 TRACTOR, fitted with Drott 4-in-1 Equipment. Extensively overhauled. Excellent buy at £2,250.
Bristol OVERLOADER, with Rear-mounted Trencher. Good machine. Inspection invited. £600.
Caterpillar D4 TRACTOR (2T Series), with Hydraulic Angledozer and Winch. In first-class condition. £550.
J.C.B., in excellent condition, with Frontloader and Rear-mounted Trencher. Offered in absolute confidence. £1,500.
John Deere 831 LOADING SHOVEL, with Scarifier. An excellent machine. Only worked 1,200 hours. £1,450.
Further particulars, or inspection at your convenience, can be arranged through our depots as listed: Nottingham (Tel. 71161); Manchester (Tel.: Trafford Park 1658); Shildon (County Durham) (Tel. 261).

FOR SALE from our own stock.— Lima 2400, with 120ft. Dragline Boom, 7yd. Bucket, driven by Caterpillar Diesel D397 Engine. This machine was new in May, 1959, and is one of the latest to come into this country, and has only been worked as a Dragline. Here is a real opportunity for a serious buyer who requires a machine of this size, and is not looking for the cheapest machine, but the best at a fair price.—PLANT SALES, LTD., 25 Castlereagh Street, W.1. Paddington 2663.

FOR SALE. — New and used Bristol Diesel CRAWLER TRACTORS, with Angledozers, Loading Shovels and Trench Diggers.—Demonstrations without obligation from the Main Dealers, H. A. SAUNDERS, LTD., 14-20 The Butts, Worcester. Telephone 26851.

FOR SALE, D4, 7J or 2T Series, with Hydraulic Dozer and Onions 4yd. Scraper, BM4/459. KINGS NORTON EXCAVATORS, LTD., Upper Gornal, Dudley, Worcs. Telephone: Sedgley 2513.

FOR SALE

Lima 2400 EXCAVATORS, with Dragline and Forward Shovel. Choice of four.
Marion 111M EXCAVATORS. Choice of two.
Lima 1201 EXCAVATORS. Choice of two.
Ruston 1008 EXCAVATOR, Diesel/Electric.
All machines in excellent condition, may be seen working, and are open to any inspection and trial.
Immediate delivery.
Call, write or 'phone:
A.R.C. MOTOR CO., LTD.,
Redhill Works, Arnold, Nottingham. Tel. 26-3331/5

FOR HIRE

SIDEBOOM TRACTORS
TRACTORS:
HD7, HD10, HD14, Dozer or Scrapers.
D4, D6, D8, Dozer or Scrapers.
TRACTO-SHOVELS:
HD5G, with 1¼ cu. yd. Bucket.
HD9G, with 2¼ cu. yd. Bucket.
EXCAVATORS:
10RB, 19RB, all equipments.
J.C.B. Hydra-Digga, all equipments.
DUMPERS:
Aveling, 4½ cu. yd.
Rob Roy, 15cwt.
ROLLERS:
5-ton and 8-ton, Diesel.
CRANES:
5-ton and 10-ton, lorry-mounted, 30-60ft. Jibs.
PUMPS:
3in. L. and F. Diaphragm.
3in. Centrifugal.
MIXERS:
5/3½, 7/5, 10/7, 14/10.
TIPPING LORRIES:
Austin 6 x 4.
All Inquiries to:
G. CARTER & SONS, LTD.
YOKESFORD HILL, ROMSEY, HANTS.
Telephone: Braishfield 395/6/7.

ARUPS EALING 4754 ARUPS
ARUPS
EALING 4754 ARUPS EALING
4754 ARUPS EALING 4754
ARUPS EALING 4754 ARUPS
EALING 4754 ARUPS EALING
4754 ARUPS EALING 4754
ARUPS EALING 4754 ARUPS
EALING 4754 ARUPS EALING
4754 4754
ARUPS ARUPS
EALING EALING
4754 ARUPS EALING 4754
ARUPS EALING 4754 ARUPS
EALING EALING
4754 4754
ARUPS ARUPS
EALING 4754 ARUPS EALING
for
CRANE
HIRE
EALING 4754
ARUP & ARUP LTD., 54/58 UXBRIDGE RD., LONDON, W.5

BEN TURNER & SON
(TRACTORS) LTD.
FOR SALES, SERVICE AND HIRE
MASSEY-FERGUSON
INDUSTRIAL EQUIPMENT
PHONE:
RIPLEY (SURREY) 2481/2

hire your plant from
MOSS
CAMBRIDGE LTD.
Prompt Delivery
146 HILLS ROAD
Cambridge
TELEPHONE 47296-7
6 CWT. TO 10 TONS
DIESEL COMPRESSOR
105 TO 600 C.F.M.
MODERN DIESEL ROLLERS
AND DIESEL COMPRESSORS
EXCAVATORS AND BULLDOZERS
DUMPERS, MIXERS, PUMPS, ETC.

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

GRAYSTON PLANT AND ENGINEERING CO., LTD. From our own stock we offer for SALE the following:

E.1406.—Lima 2400 EXCAVATOR, with 120ft. Dragline Equipment, fitted Torque Converter, £28,000.
E.1339.—10RB EXCAVATOR, 11600 Series, with Skimmer, rebuilt, £1,175.
E.1337.—19RB EXCAVATOR, 20000 Series, with Dragline, £3,400.
E.1370.—19RB EXCAVATOR, 17000 Series, with Skimmer/Backacter, £2,725.
E.1385.—22RB EXCAVATOR, 18000 Series, with Dragline Equipment, £3,725.
OP.254.—N.C.K. 304 EXCAVATOR, 1700 Series, l. and w. tracks, Dragline Equipment, £2,625.
OP.250.—N.C.K. 304 EXCAVATOR, fully crane rigged, £2,450.
OP.252.—N.C.K. 304 EXCAVATOR, 1511 Series, Dragline Equipment, A.E.C. Diesel, £2,450.
E.1384.—N.C.K. 304 EXCAVATOR, 31100 Series, with F/S Equipment, £3,000.
E.1371.—N.C.K. 405 EXCAVATOR, new 1960, Dragline Equipment, Dorman Diesel. Price on application.
E.1366.—Smith 21 EXCAVATOR, new 1956, F/S Equipment, Gardner Diesel, £3,300.
E.1321.—24RB EXCAVATOR, 18500 Series, with Dragline Equipment, £3,250.
E.1351.—33RB EXCAVATOR, 4800 Series, Dragline Equipment, £1,975.
E.1359.—37RB EXCAVATOR, 7500 Series, Dragline Equipment, £4,400.
OP.240.—43RB EXCAVATOR, 3272 Series, Dragline Equipment, late type engine, good condition, £2,800.
E.1286.—54RB EXCAVATOR, 22000 Series, Dragline, F/S Equipment, £17,500.
D.174.—Three Shawnee Poole REAR DUMPS, new 1960, £1,550 each.
TS.34.—Michigan Models 175A and 75A Tractor SHOVELS, spare wheel and Cab. Price on application.
C.1049.—7-ton Anderson-Grice 120ft. Jib Electric DERRICK CRANE, £3,450.
C.1048.—10-ton Butters 120ft. Jib Electric DERRICK CRANE, £3,950.
C.1066.—Morris 4½-ton Diesel/Electric MOBILE CRANE, 15ft. Jib, £495.
C.1057.—6-ton Crawler CRANE, Type QMC, 45ft. Jib, Ruston Diesel, £1,650.
OP.255.—Neals 6-ton MOBILE CRANE, Type QM, 50ft. Jib and 12ft. Fly, Ruston Diesel, S.L.I., new 1955, £2,975.
C.1032.—Pingon P18 Rail-mounted TOWER CRANE, new 1960, £3,000.
R.174.—8/10-ton Aveling-Barford TANDEM ROLLER, new 1956, very good condition, £1,500.
OP.248.—10/12-ton Wallis and Steevens ROLLER, National Diesel Engine, Canopy, Scarifier and Sprinklers, £825.
OP.259.—10RB SKIMMER / BACKACTER EQUIPMENT, £125.
OP.242.—33RB FACE SHOVEL EQUIPMENT, £800.
OP.226.—FAIRLEAD and BUCKET for 802 Lima Excavator, £350.
OP.246.—C.P.T. 125 c.f.m. COMPRESSORS, Caterpillar D4 Diesel Engines, £225 each.
OP.251.—C.P.T. 210 c.f.m. COMPRESSORS, Ruston 4VRH Diesel Engines, from £275 each.
OP.249.—C.P.T. 500 c.f.m. COMPRESSOR, Ruston 6VPH Diesel, pneumatics, £725.
D.177.—Several 9.7 cu. yd. Euclid REAR DUMP TRUCKS, £1,750 each.
OP.247.—Johnson 1 cu. yd. DUMPER, Petter Diesel, £175.
CP.599.—Several 20-ton and 30-ton PORTASILOS, in good serviceable condition. Price on application.

GRAYSTON PLANT AND ENGINEERING CO., LTD., 32 Stewarts Road, London, S.W.8. Tel.: Macaulay 6588 (10 lines).

FOR SALE.
One Metropolitan-Vickers Paradine Double Operator WELDING PLANT, powered by P6 Diesel Engine.
One Lincoln Single Operator WELDING PLANT.
One T25D Portable AIR COMPRESSOR.
Also New J.C.B. 4 EXCAVATORS for HIRE.
THE MANCHESTER PLANT EQUIPMENT SERVICE, LTD.,
Rutland Street, Middleton. Tel.: MID 5092.

FOR SALE, surplus to our requirements, in good working order, with choice of Equipments: One 10RB, 14000 Series; One 10RB, 15,000 Series. £450 each.—Apply CONNELL AND FINNIGAN, LTD., 44 Molyneux Street, Manchester, 13. Tel.: ARDwick 2523.

STEEL SHEET PILES, TRENCH SHEETS and PROPS URGENTLY WANTED. All sections bought, large and small quantities. Immediate payment.
DUDLEY VALE, LTD.,
9 Palace Street, London, S.W.1. Tel.: VICtoria 0252.

WANTED. — Crawler TRACTORS, BULLDOZERS, EXCAVATORS, DIGGERS, ROAD ROLLERS, LOW-LOADERS, etc. Prompt cash and collect.—Offers to ROBIN BOSWORTH, Ludlow, Shropshire. Tel.: Make St. Milboro 237.

ERNEST DOE AND SONS, LIMITED. All the machines shown in this advertisement are our own property and can be seen either at Ulting or Croydon, or demonstrated on your own site. They are all honest working tools, the best of their kind in their price range.

1955 J.C.B. DIGGER, two Buckets, Front Shovel, overhauled, warranted, £850.
1955 J.C.B. DIGGER, 24in. Bucket, Counterweight, £450.
1958 J.C.B. Hydra-Digga, with Dozalode Front Shovel, £1,250.
1958 J.C.B. Hydra-Digga/Loadall 65, two Buckets, rebuilt, warranted, £1,750.
1959 J.C.B. Hydra-Digga/Loadall 65, two Buckets, overhauled throughout, £1,850.
1960 J.C.B. 4, with ⅞ cu. yd. Front Shovel, £1,950, plus Buckets.
1961 J.C.B. 4, demonstration machine, £2,550, plus Buckets.
New J.C.B. 4 Hydraulic EXCAVATOR, two-lever, £2,840, plus Buckets.
1955 Dinkum DIGGER, with Bucket and Front Shovel, ex works. £495.
1955 Dinkum DIGGER, two Buckets and Front Shovel, rebuilt, guaranteed, £750.
Fowler VF, with Bray Angledozer, very good tracks, £550.
Air Pumps 2-tool COMPRESSOR, on pneumatics, Dorman Diesel Engine, good order, £350.
Air Pumps COMPRESSOR, similar to above but needing repairs, £145.
G.F. ½ cu. yd. Diesel DUMPER, 4-wheel, good order, £85.
1959 Rotary Hoe Super TRENCHER, as come from work, £1,000.
1955 Standard Rotary Hoe TRENCHER, straight from work, £475.
Thwaites 15cwt. DUMPER, Petter Diesel Engine, all in good order, £110.
1960 J.C.B. 303 ⅞ cu. yd. Hydraulic LOADING SHOVEL, as new, £1,350.
1959 Chaseside 800TC Hydraulic LOADING SHOVEL, £1,450.
1958 Thwaites 1-tone Orion Diesel DUMPER, overhauled, £310.
Stothert and Pitt 10/7 MIXER, £65.
International B250 TRACTOR, with Hydraulic Front Loader, £450.
Bray BL30 1 cu. yd. Hydraulic LOADING SHOVEL, overhauled, £1,050.
1957 Bray BL25 Crawler LOADING SHOVEL, overhauled, £1,850.
Onions No. 12 C.C.U. Double Drum Cable WINCH, new condition, £250.
Le Tourneau Double Drum WINCH for D4, £150.
Buckeye Double Drum WINCH, £75.
Blaw Knox 4 cu. yd. SCRAPER, in good order, £285.
Onions 6yd. Empire SCRAPER, very good order, £395.
Drayton 3-wheel DUMPER, ideal for confined spaces, £75.
1958 Ferguson 35 Diesel TRACTOR, with Shawnee Heavy Duty Front Loader, £550.
1959 J.C.B. Loadall 75, ⅞ cu. yd. Hydraulic Loading Shovel, with Crowd Action Bucket, £1,250.

ERNEST DOE AND SONS, LTD.,
Industrial Division, Ulting, Essex.
(Hatfield Peverel 311; (night) 319);
Therapia Lane, Mitcham Road, Croydon, Surrey
(Thornton Heath 4844 and 4095).

FOR SALE.
Four Aveling-Barford 4½yd. DUMPERS, £1,000.
TD9 TRACTOR, Hydraulic Dozer Unit and Trailer, £500.
TD9 TRACTOR, wide gauge, Carco Winch, £400.
Bray Hydraulic LOADING SHOVEL, £325.
Coles 5-ton Diesel YARD CRANE, £800.
14RB EXCAVATOR DRAGLINE, £450.
County Crawler TRACTOR and Dozer, £450.
DB30 TRACTOR and Dozer, £400.
19RB JURY JIB, £50.
19RB COUNTERWEIGHT, £50.
Williams 5/8HD DRAGLINE BUCKET, £100.
Smith Super 10 TRENCH BUCKET, £50.
19RB Double Rope SHOVEL LAGGINGS, £30.
N.C.K. 304 TRACKS, reconditioned, £375.
19RB TRACKS, reconditioned, £160.
Smith 8 TRACKS, unused, £100.
HOLLAND PLANT, LTD., Otley, Yorkshire. Tel. 2940.

SURPLUS PLANT (all types) and **MATERIALS** regularly PURCHASED in small or large parcels. Rapid inspections, prompt payment.—E. H. CHURCH AND CO. (EDMONTON), LTD., 68-70 Penge Road, South Norwood, S.E.25. Tel.: SYDenham 3131-3.

FOR SALE, Benford 10/7 Model RF CONCRETE MIXER, with Lister Diesel Engine, excellent condition.—A. J. WARD AND SONS, LTD., Staines 54111.

FOR SALE, 54RB DRAGLINE, 22000 Series, on long and wide tracks.—PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Tel.: Paddington 2663/5.

FOR SALE, Ruston 20 and 30DL LOCOMOTIVE RADIATORS, new and unused. Offers.—KIDDLE AND SONS, Heston Aerodrome, Cranford, Middlesex. Tel.: Waxlow 2520.

VALES PLANT REGISTER, LTD OFFER FOR IMMEDIATE SALE:
CRANES:
NEALS 2-ton NMC Diesel CRAWLER, 35ft. Jib, good condition, £950.
NEALS 2-ton NM Diesel MOBILE, 20ft. Jib, on pneumatics, good condition, £750.
JONES 3-ton SUPER 40 Diesel MOBILE, 30ft. Swan Neck Jib, on pneumatics, very good condition, £875.
NEALS 4-ton Q Diesel MOBILE, 25ft. Jib, on pneumatics, good working order, £1,875.
RANSOMES 3½/5-ton SUPER Diesel MOBILE, 30ft. Jib, on solids, full cab, good working order, £975.
JONES 4-ton KL44 Diesel MOBILE, 30ft. Jib, pneumatics, reconditioned, £2,200.
COLES 5-ton 90079 Diesel MOBILE, 15ft. 9in. Jib, solids, good working order, £1,150.
COLES 5-ton LORRY-MOUNTED, Diesel, pneumatics. Several available. Price on application.
NEALS 4/6-ton Diesel MOBILE, 20ft. Jib, pneumatics, 1957, very good condition, £3,300.
SMITH 5-ton STEAM LOCOS., 35ft. and 60ft. Jibs, from £550 each.
ANDERSON 5-ton ELECTRIC DERRICK, 100ft. Jib, good working order, £1,375.
MICHIGAN 5-ton TMCT16 LORRY-MOUNTED, 30ft. Jib, overhauled recently, £1,950.
ANDERSON-GRICE 7-ton Double Drum 2-motor ELECTRIC DERRICKS, 120ft. Jibs, 1949 and 1954, £1,850 and £3,850 each, respectively.
LORAIN MC3 7½-ton Diesel LORRY-MOUNTEDS, 30/60ft. Jibs, good order, £4,400 each.
GRAFTON 10-ton STEAM LOCO., 1945, good working order, £1,350.
COLES 12½-ton Diesel MOBILE, 80ft. Jib, pneumatics, good working order, £4,500.
COLES 20-ton Self-propelled MOBILE, 40ft. Jib, on pneumatics, very good condition, £9,900.
REICH 20/1300 TRAVELLING TOWER CRANE, 3-ton capacity, 1955, £1,450.
WEITZ G10HV TOWER CRANES, 49ft. Jibs, 69ft. 6in. height of lift, unused, £1,600 each.
PINGON P20 TOWER CRANE, Traveller or Climber, Mast 110ft., 1957, good working order, £2,200.
HAND DERRICKS, 1-ton to 7-ton capacity. Price on application.
BUTTERS 25-ton 3-motor ELECTRIC DERRICK, 80ft. Jib, Bogies. Price on application.
FOR A COMPREHENSIVE LIST OF PLANT FOR SALE AND HIRE — SEND FOR VALES FREE PLANT REGISTER.
Further details: 14 Lower Grosvenor Place, London, S.W.1. VICtoria 7531, 3501, 8080, 9886 (15 lines).

PLANT FOR SALE BY RECEIVER.
EXCAVATORS:
22RB, 16000 Series, first registered Sept., 1954, with Skimmer and Backacter, £3,000 o.n.o.
19RB, 18000 Series, first registered Dec., 1954, one owner from new, with Skimmer and Backacter, £2,250 o.n.o.
Both working in the Birmingham area.
19RB, 18000 Series, first registered Aug., 1954, with Skimmer and Backacter, £2,000 o.n.o.
Working in Towcester, Northants., area.
OTHER PLANT:
16/60 Allen TRENCHER, Dorman 4DWD Engine. Offers.
Fordson Major Dinkum DIGGER, £500 o.n.o.
30-ton PORTASILO, in good condition, £350 o.n.o.
Weatherill LOADING SHOVEL, new 1956, £500 o.n.o.
All lying in the Birmingham area.
RUSSELL, DURIE KERR, WATSON AND CO., Lombard House, Great Charles Street, Birmingham, 3.

FOR SALE.—JUBILEE TRACK; Side/End-Tipping WAGONS; FLAT BOGIES; JIMCROWS; CROWBARS; ROADFORMS; ¾in. M.S. BARS; Octagonal JUMPER DRILLS, 4ft. 6in. x 1½in.; A/F; Cruciform SOLID STONE DRILLS, 5ft.; 5-ton JACKS; TUBE/BAR BENDERS; CHAIN BLOCKS; SHOT FIRING MACHINES; Scissor Type LIFTING GRIPS; STEEL SHAFTS, 7'9ft. x 1¼in.; Galvanised JOINTING PLATES, grooved three oval holes, with Bolts; 2,000 H.S.S. Flat RAIL DRILLING BITS; 200 CATERPILLAR ADJUSTABLE JACKS; 40 Pairs STEEL WHEELS/AXLES, 36in. gauge; 12 LIGHT RAILWAY CROSSINGS, 24in. gauge, 30lb. rails, 18ft. long; One Hudson Heavy Cast-iron Ball-bearing TURNTABLE, rails on top plate 2ft. and 3ft. gauges.—JAMES H. WILLIAMS, 4 Dock Chambers, Cardiff. Telephone 31752.

D9, D8, TD18 and TD14 BULLDOZERS and Scrapers, Motor Graders, Excavators and new Tippers for HIRE or SUB-CONTRACT WORK. Particular attention given to finish and compaction. New and modern machines in first-class condition. Good operators. Technical staff available to analyse programme and price complex projects.
DICK HAMPTON,
Broadview Farm, Blacknest, Alton, Hants.
Telephone: Bentley 3241.

SLOGGETTS PLANT HIRE.—For DINKUM DIGGERS, modern machines.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

CHESHIRE HIGHWAY BORER. Long- or short-term HIRE.—ESCAY FENCING CONTRACTORS, LTD., Enfield 9685.

Shawnee Pooles
FOR HIRE
TENET CONSTRUCTION CO.
14 LONGSIGHT LANE, CHEADLE HULME, CHES.
Telephone Hulme Hall 1906

COMPRESSOR HIRE
2-6 Tool Portable and Mobile
A. J. TYLER & CO.
HARROW & HAYES, MIDDX.
UNDerhill 1515

CHASESIDE LOADMASTER 500
two years old, original paint, open to any inspection, £975—or would PART EXCHANGE for LORRY-MOUNTED CRANE, preferably American manufacture.
CARRUTHERS OF CURRUTHERSTOWN,
Near Dumfries (233).

Tower Crane Services offer used cranes of high quality. A RANGE OF 60 MACHINES for sale and 15 machines for hire
Contact us also for: "Lite" weight Skips, Metric size nuts and bolts, Dismantling devices, Erection & services
Tower Crane Services for the tower crane user
BENHAMS HOUSE, HORLEY ROW, SURREY · Telephone: HORLEY 1147

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

NOBLE PLANT AND ENGINEERING COMPANY 143 Hersham Road, Walton-on-Thames, Surrey. Telephone: Walton-on-Thames 23693/7.
Euclid 15-ton REAR DUMP TRUCKS, Model 27FD, 1950, Cummins Diesels, good order, £1,500 each.
19RB, 9000 Series, any one equipment, 3VQBN, good order, £1,250
19RB, 5000 Series, 3VQBN, any one equipment, good order, £1,200.
10RB, No. 14450, 3VRHN, any equipment, £900.
19RB FACE SHOVEL, £450.
19RB BACKACTER EQUIPMENT, £250.
N.C.K. 304 BACKACTER EQUIPMENT, £350.
19RB, No. 11119, 4VROHN, any one equipment, £1,750.
Pullen 10-ton WOBBLY-WHEEL ROLLER, £200.
Jones Super 40 Lattice CRANE JIB, in two sections, £100.
Ransomes-Rapier 423 DRAGLINE EQUIPMENT, £200.
Two ¾ cu. yd. Ruston-Bax DRAGLINE BUCKETS, fully dressed, £150 each.
ROTOVATOR Gem, J.A.P. Petrol Engine, excellent order, £75.
Drott 4-in-1, 1959, overhauled, £2,000.
Onions WINCH, 4D Tractor, £75.
Pegson RAMMERS, £10 each.
Miscellaneous ROAD FORMS, 4in., 5in., 6in. and 8in. Low prices.
NOBLE PLANT AND ENGINEERING COMPANY, 143 Hersham Road, Walton-on-Thames, Surrey. Telephone: Walton-on-Thames 23693/7.

PLANT FOR SALE.
Huber Diesel ROLLER, 6/8-ton, £400.
Nuffield Universal TRACTOR, with Hydraulic Shovel, etc., £200.
Abtus GRAVEL or CLINKER SCREEN, 4ft. × 2ft. × ½in., £55.
Ex W.D. TRAILER, 4-ton, platform body, £50.
All in good working order.
SOUTHERN SURFACES, LTD., New Milton, Hants. Tel.: New Milton 2428.

FOR SALE. County CRAWLER, 4D Diesel, with Bray Hydraulic Dozer. Farm use only. Excellent condition.—SOUTH MIDLANDS ENGINEERS, Shipston-on-Stour 612 and 624.

WANTED. 2-ton MOBILE CRANE, Diesel, pneumatics, Cantilever Jib, Ransomes and Rapier, or similar.—Write Box P.5260, "The Contract Journal."

FOR SALE. One Whitlock Dinkum Mk. III DIGGER for County Crawler, in perfect order, £250. PLANT REPAIRS (BRISTOL), Fox Road, Bristol, 2.

AVAILABLE for HIRE and CONTRACT: D9 and D8 TRACTORS, with Blade or Scraper.—ELLIOTT, Wetherby Road, York. Telephone 78220 and 78501.

WANTED. N.C.K. 304, in clean or rough condition; also one Priestman Cub Mk. V.
Write Box P.5241, "The Contract Journal."

FOR SALE. TD14A International BULLDOZER, Series TOE9761T4, £1,600.
Telephone: Romford 43686.

THE CHEAPEST EXCAVATORS in the country are available from AXWORTHY:
10RB, several available, any equipment. From £500 each.
19RB, from 5000 to 21000 Series, any equipment. From £1,300 each.
22RB, from 15000 to 24000 Series, any equipment. From £3,650 each.
24RB, from 5000 to 8000 Series, Shovel or Dragline. From £1,500 each.
24RB, 6000 Series, base machine, £600.
33RB, from 5000 to 14000 Series, Shovel or Dragline. From £2,950 each.
37RB, from 2000 to 9000 Series, Shovel or Dragline. From £2,750 each.
38RB, from 19000 Series, Shovel or Dragline. From £8,000 each.
43RB, from 4000 to 14000 Series, Shovel or Dragline. From £3,500 each.
54RB, from 9000 to 32000 Series, Shovel or Dragline or base. From £9,000 to £18,000 each.
54RB, 14000 Series, base machine, £6,000.
110RB, new 1957/59, Face Shovel. From £30,000 each.
Priestman Cub, from pre-war to Mk. V, all equipments. From £200 each.
Priestman Wolf, from 1940 to IIIA and IIIB, all equipments. From £250 each.
Priestman Tiger, from A7000 to A9000 Series, any equipment. From £2,250 each.
Priestman Panther, from 1936 to 1953, Dragline. From £250 each.
N.C.K. 304, from 1600 Series to 31000 Series, Shovel or Dragline. From £2,500 each.
N.C.K. 405 (two available), new 1959, Crane or Dragline.
N.C.K. 605, new 1957, Crane or Dragline, £13,750.
Smith 2/10, 13000 Series, Backacter. Offers.
Smith 21, new 1954, any equipment. Offers.
Ransomes-Rapier 410, various machines. From £300 each.
Ransomes-Rapier 423, from 1946, Shovel or Dragline. From £600 each.
Ransomes-Rapier 424, new 1954/55, any equipment. From £2,250 each.
Ransomes-Rapier 440, from 1952, Dragline or Crane. From £1,500 each.
Lima 802, 1201 and 2400, from 1948, Dragline, Crane or Face Shovel.
Marion 33M and 111M, from 1944, Dragline or Face Shovel.
P. and H. 255A, 655A, 955A and 1055, from 1948, Dragline, Crane and Face Shovel.
North West 80D, 4000 Series, Face Shovel and Dragline.
Manitowoc 3000, 3000 Series, Dragline/Crane.
Manitowoc 2000, new 1950, Dragline/Crane, 20-tons.
EQUIPMENTS:
Ransomes-Rapier 424 DRAGLINE, complete, £325.
24RB DRAGLINE, complete, £275.
Lima 802 FACE SHOVEL, high lift or standard, £600.
AXWORTHY AND COMPANY, LTD.
(Drotts for Hire),
Straight Road, Old Windsor, Berks.
Telephone: Windsor 3434 or 3384.
Telegrams: Axworthy, Windsor.

CONTRACTORS' PLANT FOR HIRE.
HIRE PURCHASE OR SALE:
Selecton from our comprehensive fleet of Modern Plant.
CRANES (standard gauge):
12/15-ton Brownhoist, 50ft. Jib.
10-ton Grafton, Diesel, 34ft. Jib.
8-ton Wilson, Steam, 35ft. Jib.
5-ton Grafton, new Diesel conversion, 35ft. Jib.
5-ton Smith, 50ft. Jib (two).
CRANES (MOBILE ROAD):
Coles 15-ton, 80ft. Jib.
Lorain 10-ton, Lorry-mounted, 65ft. Jib.
Ruston 10-ton, track-mounted, 40ft. Jib.
Ransomes 8½-ton, Diesel, 21ft. Jib, 1951.
Coles 5-ton, Lorry-mounted, 24ft. Jib.
Jones 4-ton, KL44, Diesel, pneumatics, 24ft. Jib.
Jones 3-ton, Super 40. Three available.
Jones 2-ton, Super 20 and 22.
DERRICKS:
5-ton Butters, 3-motor, 90ft. Jib.
5-ton Butters, 120ft. Jib, Electric, new 1956.
5-ton Butters, 80ft. Jib, Electric, new 1949.
3-ton Smith, 47ft. 6in. Jib, single motor.
3-ton, 40ft. Jib, hand-operated.
EXCAVATORS:
Two each 19RB and 10RB.
Weatherill ¾yd. Loading Shovel, 1959.
J.C.B. Hydra-Digga/Loadall, ⅞yd., 1960.
LOCOS:
Fowler Diesel Locos., 150-h.p. (two).
Barclay 80-h.p.; Ruston 88-h.p., Diesel.
Bagnall Steam, 14in. × 22in., oil-fired.
Peckett Steam, 7in. × 12in.
PORTABLE BOILERS:
Mobilo, Oil-fired, Economic, on pneumatics (1,500lb. evaporation): Four 800lb. Mobilo, Oil-fired; also Static Coal-fired.
Cochran Cross Tube and Crane Boilers.
AIR COMPRESSORS (on pneumatics):
210 c.f.m., 100 p.s.i., Diesel.
Four 105 c.f.m., 100 p.s.i., Diesel Broomwade.
ROLLERS:
12-ton Aveling.
9½-ton Marshall.
6-ton Huber.
CONCRETE MIXERS:
Millars 14/10, Diesel-driven.
Contractors' Pumps, Roadforms, Flexible Hoses (4in. to 10in.), Steel and Cast-iron Pipes up to 20in., Electric Motors, Diesel Engines, Portable Crushing Plant, Light Railway Equipment and Locomotives, Scaffolding, Fittings, etc.
FRED. WATKINS (ENGINEERING), LTD., Coleford, Glos. Telephone: 2271 (5 lines).

FOR SALE. D8 2U (gate change) 8A Hydraulic Dozer, Caterpillar 25 C.C.U.; 17RB, 4VRON, ¾ Shovel Equipment; R/R 410, 1954, P4, Shovel; N.C.H. Caterpillar Diesel Engine, Shovel.—SUTCLIFFE, Holts Road, Arnold, Notts. 26-3417.

'PHONE MITCHELL'S PLANT SERVICES, LTD., for the HIRE of a Weatherill LOADING SHOVEL HOW 3493.

WANTED DAMAGED or WORN OUT **CRANES**
suitable for rebuilding, M.L.S. Upper Wortley Road, Rotherham, Yorkshire

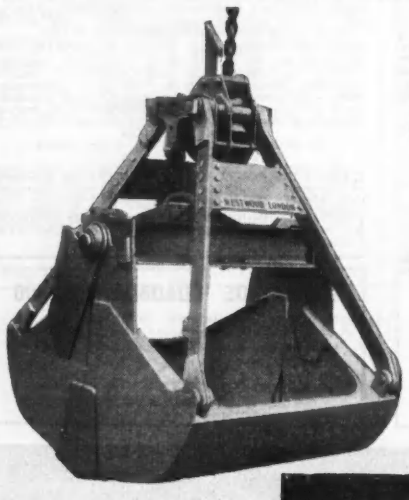
---

HIRE **Bell** PLANT
Drotts, Excavators, Compressors etc.
HARROGATE 84800

EQUIPMENT SALES & HIRE CO. LTD.

FOR HIRE
TRAXCAVATORS 955
FITTED SIDE TIP & RIPPER
CAT. D.7.'s Dozer or Scraper
19 R.B.'s — Any Equipment
HOUNSLOW 8831

MECHANICAL GRABS



Single chain Ring discharge Grab particularly suitable for handling sand, ballast, etc. No. 236.

JOSEPH WESTWOOD & Co. Ltd.
Contractors to H.M. Government Departments, Bridge and Constructional Engineers; manufacturers of Pressed Steel Troughing and Sheet Metal Equipment. Steel Stock Holders.
NAPIER YARD, MILLWALL, LONDON, E.14.
Telephone: EASt 1043
'Grams: Westwood, Easphone, London.
Cables: Westwood, London.

WESTWOODS

ALL TYPES OF BUILDERS' & CONTRACTORS' PLANT
FOR HIRE
SYMES (PLANT) LTD.
ONGAR ROAD
BRENTWOOD, ESSEX
TEL: BRENTWOOD 2116 (5 lines)

MOORE'S MIXER HIRE Telephone TOTtenham 0401 (10 lines)
Winget 3/2 cu. ft. to 14/10 cu. ft.

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

FOR SALE — ALL EX STOCK.
22RB, No. 17023, with Shovel, £3,500.
10RB, No. 14449, Skimmer/Backacter, £1,200.
10RB, No. 19286, Skimmer/Backacter, £1,700.
Mk. V Priestman Cub, No. A.8764, Skimmer/Backacter, new late 1958, £1,550.
Mk. V Priestman Cub, No. A9114, Skimmer/Backacter, new 1959, £1,650; with Dragline, £200 extra; or £3,250 the Mk. V lot.
Priestman Cub, new about 1947, fitted Dorman Diesel Engine, little used machine, price with Dragline, £550; with Skimmer/Backacter, £650 the lot. Also over £100 new Spares at £50.
First item ex stock Northern Ireland.
10-ton Huber ROLLER, first-class condition, price £1,150.
30in. x 18in. Parker Double Toggle CRUSHER, first installed 1960. For quick sale, £1,600.
SAVILLE-CALVERT (MACHINERY), LTD.,
Harvester House, Stratford-on-Avon, Warwickshire.
Telephone 4242.

BUILDMASTER 50R TOWER CRANE for SALE, with 65ft. or 100ft. Jib, British manufactured current production model ex hire fleet, in first-class condition and guaranteed. — ABELSON AND CO., Sheldon, Birmingham. Sheldon 2424.

THORNYCROFT NR6 DIESEL ENGINE, out of Coles 5-ton Crane; good engine but cylinder block cracked. Best offer accepted.—NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

LOW-LOADERS for HIRE, up to 14-ton capacity, 18ft. well bed.—DOUGLAS HAMILTON, LTD., Tunbridge Wells. Telephone: Southborough 1538/9.

WANTED, Serviceable Coles 10/20-ton CRANE. MARINE GEARS, LTD., P.O. Box No. 3, Wakefield.

DUDLEY VALE, LTD.
OFFER FOR SALE:
19RB EXCAVATOR, with Dragline and Skimmer Equipment.
5-ton Butters Electric SCOTCH DERRICK, 120ft. Jib, with Bogies.
10-ton 2-motor Electric DERRICK, with 120ft. Jib and Bogies, new 1958.
Ruston DIESEL LOCO., 2ft. gauge, 25/30-h.p.
KL44 MOBILE CRANE, 24ft. Jib, pneumatics.
Two Stothert and Pitt 54T Vibrating ROLLERS, Petter Diesel Engine.
Sykes No. 7¾ and No. 8 Double Drum PILING WINCHES, each powered by Ruston Diesel Engine.
Larssen and Appleby-Frodingham STEEL SHEET PILES, 1, 2, 3 and 4 Sections.
Four Johnson 1½ cu. yd. Diesel DUMPERS.
Two Neals NM 2-ton MOBILE CRANES, 25/35ft. Jib, pneumatics.
SKIMMER EQUIPMENT complete for 19RB Excavator.
DUDLEY VALE, LTD.,
9 Palace Street, London, S.W.1. Tel.: VICtoria 0252.

FOR SALE, Priestman Tiger FACE SHOVEL EQUIPMENT, ⅝ cu. yd., new October, 1960, used few months only, cost £960, accept £700. Would HIRE. FRED. WATKINS (ENGINEERING), LTD., Coleford, Glos. 'Phone 2271/5.

FOR HIRE, Lima 802 CRANE, fully rigged and insured, with 100ft. Boom.—PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Tel.: Paddington 2663/5.

C. F. WILLIAMS (PLANT HIRE), LTD., Stockport. For EXCAVATORS, Drott 4-in-1 Machines, BULLDOZERS, etc.—'Phone: Stockport 7096.

FOR SALE.
KL15 Jones Petrol-driven Self-propelled MOBILE CRANE, powered by Petter Diesel Engine, 21ft. Jib, solid rubber-tyred wheels, £425.
Record 20ST Self-erecting Mobile TOWER CRANE, pneumatic tyres, overrun brakes, 8cwt. at 34ft. radius, 10cwt. at 27ft. radius, 66ft. lift, erected in four minues, £1,500.
110 c.f.m. Broomwade Diesel-driven Portable COMPRESSORS, Lister 27/3 Diesel Engines, mounted on four pneumatic-tyred wheels, with drawbar, 1954 machines, checked over, sound order, £325 each.
110 c.f.m. Broomwade Diesel-driven Portable COMPRESSORS, Lister 27/3 Diesel Engines, mounted on four pneumatic-tyred wheels, with drawbar, new 1954/55, checked over, sound order, £300 each.
1957 Air Pumps Diesel-driven COMPRESSORS, Ford 4D Diesel Engine, two pneumatics, fast towing type chassis, electric steering, Model APD135, £375.
15cwt. Diesel-driven DUMPERS, Petter Diesel Engines, £165 each.
15cwt. Diesel-driven DUMPER, new 1960, sound order throughout, Petter Diesel Engine, £195.
1955 Whitlock Dinkum Digger Fordson Major TRACTOR, complete with Cab, lighting equipment, Skyhi Shovel, 18/24in. Buckets, Bulldozing Blade, Serial No. 654, sound condition, £595.
1955 Whitlock Dinkum Digger, Ferguson TRACTOR, Cab, lighting equipment, Bucket, Serial No. FEF461248, £385.
1954 Chaseside Rope-operated Diesel-driven LOADING SHOVEL, £150.
HOLDSWORTH (YORKS.), LTD.,
10 Park Square, Leeds, 1.

WANTED

to purchase urgently for export. Lima 1201 excavators. Best possible price offered. Condition immaterial.

Write giving fullest details to:
Box No. V.V.520, "The Contract Journal"

KINGSTON PLANT
HANWORTH · MIDDX.
FOR CONCRETE MIXERS AND ALL PLANT HIRE
FELTHAM 4084

HENRY BOOT PLANT
OFFER:
EXCAVATOR EQUIPMENTS FOR SALE
N.C.K. 304 FORWARD SHOVEL £800
19RB BACKACTER, including Laggings £250
19RB SKIMMER, including "A" Frame £150
PRIESTMAN PANTHER SKIMMER and BACKACTER £100
SMITH 2/10 SKIMMER and BACKACTER £50
DRONFIELD, SHEFFIELD
TEL: DRONFIELD 3206
Also at Altrincham. Tel. Altrincham 1701

WEATHERILL HYDRAULIC

F. E. WEATHERILL LTD

USED EQUIPMENT DIVISION

We can meet your Used Loading Shovel requirements either at our main Works at Welwyn Garden City or our Depots at Walsall, Manchester, West Hartlepool and Bothwell.

1958 J.C.B. Loading Shovel and Backacting Trencher, powered by Fordson Diesel Engine, fitted with ¾ cu. yd. Loading Scoop, 750 x 16 front, 1400 x 24 tyres at rear £1,550
1959 WEATHERILL Hydraulic Loader, Type 12H, powered by Fordson Diesel Engine, with ¾ cu. yd. Scoop. Power-assisted steering fitted. Digger Teeth £1,300
1960 (Dec.) WEATHERILL Industrial Loader, Type S2, with Perkins P3 Diesel Engine and ½ cu. yd. Scoop. Fully enclosed driver's cab. Lighting Equipment. Towing Hitch. Machine very little used £975
1959 WEATHERILL 2-way Overloader, with Fordson Diesel Engine, fitted with ¾ cu. yd. Scoop. 1400 x 24 tyres at rear. Driver's Cab £1,150
1958 CHASESIDE Loadmaster, Model 800, front wheel drive Loader, powered by Fordson Diesel Engine, with Fullers Torque Converter. Fitted 1 cu. yd. Deep Penetration Scoop. 900 x 16 steering wheels, 1400 x 24 driving wheels £1,100
1957 WEATHERILL Hydraulic Loader, Type 2HCRA, powered by Fordson Diesel Engine, with 1 cu. yd. Scoop. Towing Hitch. 29 x 8 front and 1400 x 24 tyres at rear £900
1958 WHITLOCK Dozaloda, with Backacter, powered by Fordson Diesel Engine, fitted ½ cu. yd. Scoop £750

Also available at Welwyn, ex demonstration WEATHERILL Hydraulic Loaders, Models 12H, L60, L62 and L64, at greatly reduced prices.

Ask for fuller details of these and other machines from our most comprehensive stock.

F. E. WEATHERILL LTD
USED EQUIPMENT DIVISION
Tewin Road,
WELWYN GARDEN CITY, Herts.
Tel.: Welwyn Garden 24221-5

MOBILE CRANES FOR HIRE
5-25 TON CAPACITY
PHONE WAT 3303



Beck & Pollitzer Transportation Ltd.
Universal House, Southwark Bridge Road, S.E.1.
WATerloo 3303

Hargarth OF YORK LTD

MAIN DISTRIBUTORS
JCB ALLEN
with Super LIG Service

New ALLEN 9/15 TRENCHER £3,750
New ALLEN 3/12 TRENCHER £1,100
New J.C.B. 4s, ex stock £2,780
New J.C.B. 4L, ex stock £1,725
1959 HYDRA-DIGGA/LOADALL "65" £1,600
1958 HYDRA - DIGGA / LOADALL £1,100
1957 HYDRA-DIGGA Major LOADER £800
J.C.B. Mark 1s, from £500
1961 J.C.B. 4, with 3-in-1 Bucket £2,350
1959 HOWARD Super £1,250
1959 HOWARD Super £1,200
1957 HOWARD Standard £900
1959 WINGET 88, plus grading £1,450

All reconditioned machines carry three months' warranty.



Telephone: York 55181/2 & 54557

MOORE'S PUMP HIRE Telephone TOTtenham 0401 (10 lines)



Warsop Centrifugal and Wickham Diaphragm.

PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

FOR SALE.
Whitlock Dinkum Digger Major EXCAVATOR and Power Shovel, manufactured 1958, overhauled and repainted, and in excellent condition. Complete with Excavating Bucket (choice of two). £1,650.
Whitlock Mk. III DINKUM DIGGER and Dozaloda, manufactured 1957, in very good condition and complete with Excavating Bucket. £1,000.
Shawnee EXCAVATOR and Whitlock Dozaloda, manufactured 1957, in good working order and complete with three Excavating Buckets, £800.
J.C.B. EXCAVATOR/COUNTERWEIGHT, manufactured 1955, in working order, complete with Excavating Bucket, £500.
Pescara-Muntz COMPRESSOR, manufactured 1954, in working order and complete with two Road Breakers, steels and hoses, £250.
Pegson RIPPER, overhauled and complete with battery, £25.
Brahms-Patterson BITUMEN BOILER, with Engine-driven Agitator, £50.
Further details:
GROCOCK AND DAY (PLANT HIRE), LTD.,
Rowsley Street, Leicester. Tel. 36566.

LOADING SHOVELS.
1960 Bray BL30, $1\frac{1}{2}$ cu. yd. Bucket, cab, overhauled, £1,500.
1959 Chaseside 800TC, 1 cu. yd. Bucket, Torque Converter, cab, £1,450.
1958 Chaseside 700, 1 cu. yd., cab, power steering, £1,000.
1958 Bray BL430, $1\frac{1}{2}$ cu. yd., four-wheel drive, cab, power steering, £1,450.
1956 Chaseside 500, $\frac{7}{8}$ cu. yd. Digger Bucket, cab, £850.
1957 Bray Crawler, 1 cu. yd., Ford Diesel, £1,450.
Chaseside $\frac{1}{2}$yd. Diesel Wire Rope SHOVEL, ex Council, £275.
New Bray Four-wheel drive and Two-wheel drive Shovels always in stock.
WILLIAM R. SELWOOD, LTD.,
Chandler's Ford, Hants. 'Phone 2981.

FOR SALE. Two off Marion WALKING DRAGLINES, Type 7400, fitted Cooper-Bessemar Diesel Engines.—WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

FOR SALE. 3/4-ton Buffalo ROLLER, in good working order. Might consider exchange on later 6/8-ton Roller.—F. AND R. CAWLEY, LTD., 62 Wingate Road, Luton. Tel. 52525.

FOR SALE. J.C.B. 4 EXCAVATOR, November, 1960, 18in., 24in. and 34in. Buckets, excellent condition throughout, £2,000.—Write Box P.5174, "The Contract Journal."

A. R. C.
Are best CASH BUYERS of EXCAVATORS, TRACTORS, PLANT and MACHINERY. You will do a good deal better at:
A.R.C. MOTOR CO., LTD.,
Redhill Works, Arnold, Nottingham.
Telephone: 26-3331/5.

FOR SALE

RANSOMES RAPIER 7-ton Standard MOBILE CRANE, 1955, Model M4487. Power-assisted steering, pneumatic tyres. Standard Jib 11ft. 6in. outreach. This crane recently completely overhauled, "A" Frame and Jib checked by makers. Certificate of Test and Examination held.
All offers to:
RUDDERS AND PAYNES, LTD.,
Aston, Birmingham, 6,
where crane can be inspected.

CONCRETE MIXERS FOR HIRE AND SALE.
18/12 Benford Reversible Drum Concrete Mixer, complete with Weigher and Dragline. Recent complete overhaul. Available for immediate delivery.
14/10 Stothert and Pitt Closed Drum Raised Discharge Concrete Mixer, complete with Weigher and Dragline. Completely overhauled and painted. Excellent condition. Immediate delivery.
14/10 Winget 10HTH Tilting Drum Concrete Mixer. Recently overhauled. Excellent condition.
10/7 Winget THR Tilting Drum Concrete Mixer. Completely rebuilt and almost as new. Immediate delivery.
10/7 Blaw Knox Closed Drum Concrete Mixer, complete with Built-in Weigher. Recent complete overhaul. Immediate delivery.
40 other Hopper-loaded Mixers in stock.
7/5 Millars Hand-loaded Diesel driven. Overhauled and ready for use. Two available. Immediate delivery.
$5/3\frac{1}{2}$ Benford, Parker, Winget, Liner, Stothert and Pitt, Goodwin and Wall-Ace. Petrol, Diesel or Electric driven. On steel or pneumatics. 50 available. Many overhauled and ready for immediate delivery.
Large stock of New and Second-hand SPARES.
New 4/3 and $5/3\frac{1}{2}$ Barford Mixers from stock.
W. V. DAVIES,
Concrete Mixer Service,
Shipston-on-Stour. Telephone 525 and 612.

FOR SALE OR HIRE.
Three Coles 5-ton Short-wheelbase Lorry-mounted CRANES.
Two Coles 5-ton Long-wheelbase Lorry-mounted CRANES.
Eight D7 TRACTORS, 1T, 4T and 3T, with equipments.
One D6 TRACTOR, 5R, Blade and Winch.
6yd. and 9yd. SCRAPERS, Onions and L.T.
Three Euclid S7 Mo*or SCRAPERS, Leyland Engines.
WM. TAYLOR (NORWICH), LTD.,
Horsey Toll, Stanground, Peterborough.
Telephone: Peterborough 4389.

ROAD ROLLERS: Aveling-Barford GDR, 9/11-ton, 1953, power steering; GD1, 8/10-ton, late 1946, ex council, power steering; GC 6/8-ton, 1947, ex council; GBV, 5/6-ton, 1950, ex council; SD, 10/12-ton, 1946. All fitted with Awnings and Sprayers. A. M. COLE, Eastgate, Sleaford, Lincs. Tel. 463.

AVAILABLE for HIRE with skilled operators, 50-ton Heavy Duty CRAWLER CRANES fully rigged with 120ft. Booms complete with Juries, fully insured.—PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. Telephone: Paddington 2663/5.

FOR HIRE. 5-ton Lorry-mounted Coles CRANE. Telephone: Ingatestone 419 (any time).

CROUDACE LTD

OFFER FOR SALE:

One 14/10 WINGET HTH MIXER, c/w Weighgear. Overhauled and repainted. Spare Drum Cone and small quantity of Spares **£450**

Two REDLER POWER SHOVELS, B.S.A. Engines. Good condition at each **£125**

Two RITECURE SPRAY UNITS. Completely overhauled at each **£40**

LAMBS GREEN, HORSHAM, SUSSEX.

TELEPHONE: RUSPER 257

GRAVITY ROLLER CONVEYOR

Secondhand **Good Condition**

From $6\frac{1}{2}$in. to 30in. wide, 3in. to 6in. pitch, $1\frac{1}{2}$in. to $2\frac{1}{2}$in. diameter rollers.
Standard 8ft. lengths. Write or 'phone for full details.

COX & DANKS LIMITED

Branches:

BIRMINGHAM:
Scapa Works,
Langley Green,
Oldbury, Birmingham.
Tel.: Broadwell 1611.
Telex: 33183.

MANCHESTER:
Frederick Road,
Pendleton,
Salford, 6.
Tel.: Pendleton 2481.
Telex: 66448.

SHEFFIELD:
Scapa Works,
Wadsley Bridge,
Sheffield, 6.
Tel.: Sheffield 344391.
Telex: 54205.

LONDON:
Scapa House,
Park Royal Road,
London, N.W.10.
Tel.: Elgar 5811. Telex: 25239.

BEDFORD:
Scapa Works,
Melbourne Street,
Bedford.
Tel.: Bedford 67331.

NEAGRON (CONSRUCTION), LTD.
OFFER FOR SALE:
COLES 5-ton Long-wheelbase Lorry-mounted CRANE, Mk. 7, Series VII, new 40ft. Jib, Thornycroft Chassis, Crane powered by Gardner 4LW Diesel Engine. King Post and Roller Path recently rebuilt. £2,600.
JONES KL44 3/4-ton MOBILE CRANES, 30/50ft. Jibs, 10ft. Fly Jibs, Ruston 2VSH Diesel Engines (electric start), crawler tracks. New 1951 and 1953. £1,500 and £1,850 each.
A.C.E. Comet MOBILE HOIST, 21ft. lift, three extra 11ft. Extensions. Petter AVA1 Diesel Engine. New 1953. £175.
PRIESTMAN 27/22 cu. ft. Single Chain Self-dumping GRAB, £195.
Two BROOMWADE HEAVY BREAKERS, three LIGHT PICKS, 22 STEELS, 20 PICK POINTS, eight 50ft. HOSES (two new). £70 the lot.
MILLARS Dual Purpose Semi-portable ASPHALT PLANT, 10 tons per hour. Full details on request.
WINGET 2 cu. yd. BATCHING PLANT, 60 cu. yd. Four-compartment Storage Hopper, 2 cu. yd. Aggregate and Cement Batcher, Winget Type 50T 2 cu. yd. Air-operated Mixer, 18-ton Cement Hopper, etc. Electrically operated.
JOHNSON Model LA 25ft. CONVEYOR, 18in. Troughed Belt, Villiers Petrol Engine, reconditioned. New 1954.
NEALS Model NMC 2-ton MOBILE CRANE, 30ft. Jib, 5ft. and 10ft. Fly Jibs, Ruston 2VTH Diesel Engine, crawler mounted. New 1953.
JONES KL44 3/4-ton MOBILE CRANE, 40ft. Swan Neck Jib, Ruston 2VSH Diesel Engine, pneumatic tyres. New 1951.
RANSOMES AND RAPIER $8\frac{1}{2}$-ton MOBILE CRANE, petrol/electric drive, solid rubber tyres. New 1944.
BUTTERS 7-ton DERRICK CRANE GABBARD, mounted on bogies. New 1959.
BUTTERS 7-ton Electric DERRICK CRANES, 120ft. Jibs. New 1948.
ALLEN $12\frac{1}{2}$-ton Lorry-mounted CRANE, 70ft. Jib, Gardner Diesel Engine. New 1959.
Smith Model ME 15-ton Lorry-mounted CRANE, 80ft. Jib and Fly Jib, Gardner Diesel Engine. New 1956.
LIEBHERR Model 15H Climbing or Static TOWER CRANE. New 1957.
BABCOCK-WEITZ G15 2-ton Rail-mounted TOWER CRANE, 65ft. 6in. Saddle Jib, Winch, Cable, Ballast. New 1961.
PINGON Model P25 $2\frac{1}{2}$-ton TOWER CRANE, 99ft. Saddle Jib. New 1959.
BUILDMASTER Model 360 3-ton TOWER CRANE, 86ft. Luffing Jib. New 1956.
REICH 3-ton TOWER CRANE, 66ft. Luffing Jib, Ballast. New 1955.
LIEBHERR Model 50HB 98ft. Luffing Jib TOWER CRANE, High-speed Hoisting Unit, 10 Tower Sections. New 1959.
GOODWIN-BARSBY 90 tons per hour WASHING, SCREENING AND CRUSHING PLANT, Dewatering Equipment, Storage Bins, Screens. New 1960.
CHASESIDE 4 cu. yd. High-speed DUMPER, Fordson Diesel Engine. New 1956.
BLAW KNOX BK50 $\frac{1}{2}$ cu. yd. EXCAVATOR, 70ft. Crane Jib and Grab Skimmer and Backacter Equipments, wide track plates, Diesel Engine. Parcel of Spares. New 1955.
54RB $2\frac{1}{2}$ cu. yd. EXCAVATOR, Face Shovel or Dragline Equipment, Paxman Diesel Engine. New 1957.
P. & H. 1055LC $3\frac{1}{2}$yd. EXCAVATOR, 100ft. Dragline Equipment, extra long tracks, Cummins Diesel Engine. Rebuilt.
TRIANCO Type "A," "B" and "BA" FLOOR CENTRES.
Complete HOWARD SOIL STABILISATION TRAIN. New 1955.
BUCYRUS-EYRIE 50R Rotary BLAST HOLE DRILL, 120ft. depth. All-Electric.
HENDERSON 6-ton Electrically powered Radial TRAVELLING AERIAL CABLEWAY, 1,322ft. span, 60ft. head mast. New 1955.
BLAW KNOX 18/12 cu. ft. Closed Drum MIXER, Hydraulic Weighgear, Drag Shovel, Petter Diesel Engine. New 1960.
PUMPCRETE PC4 CONCRETE PUMP, 550ft. of standard $4\frac{1}{2}$in. Piping, electrically operated. New 1959.
1,000 RAPID METAL DEVELOPMENT 2ft. x 2ft. SHUTTERING PANELS.
B.S.P. 100ft. Universal Fully Raking 1-in-3 PILE FRAME, 4-ton Hammer, Sykes Three Drum Winch. New 1951.
New LE TOURNEAU 4 cu. yd. SCRAPER, new P.C.U.
BARBER-GREENE Model 975 Junior BITUMINOUS PAVER. New 1951.
CATERPILLAR D8 TRACTOR, 2U Series, Bitelyn Hydraulic Equipment and Caterpillar P.C.U., 12yd. Scraper. Parcel of Spares.
CASE Model WS 1 cu. yd. Pneumatic-tyred Tractor SHOVEL. New 1960.
CASE Model W12 $2\frac{1}{2}$ cu. yd. Pneumatic-tyred Tractor SHOVEL. New 1960.
ALLEN-PARSONS 16/60 TRENCHER, 2ft. Basket Line, Dorman Diesel Engine. New 1953.
New KINGSLAND $1\frac{1}{2}$in. and 2in. Diesel and Electric BAR CROPPERS available ex stock, Dagenham Depot.
New Neagron TRENCH SHEETS, 13in. wide, 6/14ft. long, $8\frac{1}{2}$lb. per foot run, available ex stock, 4s. 2d. per square foot delivered.
Agents and stockists for new WOODS Electrically operated PROPANE HEATERS.
All types of Crane and Excavator Jibs fabricated to order.
Further details:
Abbey House, Victoria Street, London, S.W.1.
Telephone: ABBey 5152, Sullivan 7626 (10 lines).

WANTED. Blaw Knox TARMAC PAVER; also 36in. x 24in. Crusher.
Write Box P.5267, "The Contract Journal."

FOR SALE. 10R8 Backacter EXCAVATOR, brand new, Serial No. 25550.—Apply S. W. HALL, 199 Wigan Road, Exton, near Chorley. Tel. 3804.

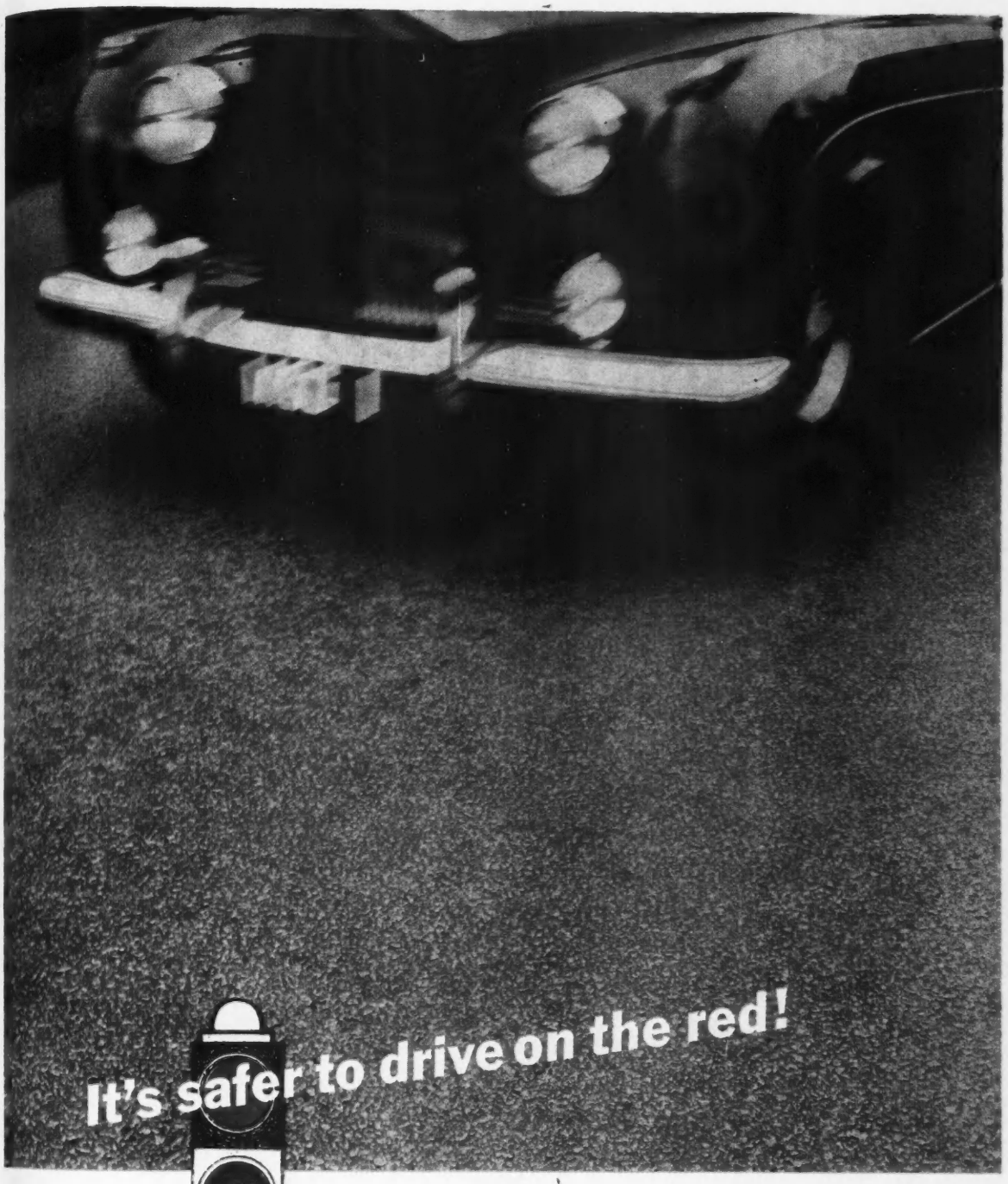
SLOGGETTS PLANT HIRE.—Fleet of DIGGER-LOADERS for immediate HIRE.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

MERTON FRONTLOADER 59, new February, 1961. Little used. Bargain.—STOKE LANE QUARRY CO., LTD., Stoke St. Michael, Bath. Oakhill 284.

PLANT ENGINEERING SERVICES
(EXETER) LIMITED · IVYBRIDGE and EXETER
YOUR DEVON & CORNWALL PLANT SERVICE

Mixer & Vibrator hire
3/2 cu. ft. to 14/10 cu. ft. capacity
Concrete Mixers and Petrol Vibrators
Main Agents for Winget and Muir-Hill

IVYBRIDGE 345/6
EXETER 77730



It's safer to drive on the red!



Paradoxically, red does stand for safety on the roads — when it's Enderby Red Granite. An Enderby Red surface gives skid-preventing grip, long life, and low maintenance costs. In addition, its distinctive colour contrasts well with verges and clearly defines traffic lanes; its excellent light-reflecting properties increase the effectiveness of headlights and street lamps. Like so many authorities — go ahead — on red.

ENDERBY RED GRANITE

ANTI-SKID . LIGHT REFLECTING . HARD-WEARING

THE MOUNTSORREL GRANITE GROUP

A Division of Redland Holdings Limited

The Mountsorrel Granite Co Ltd
Enderby & Stoney Stanton Granite Co Ltd
Mountsorrel Tarred Macadam Co Ltd

Head Offices: 21 New Walk, Leicester
Tel: 20891

London Office: Redland House,
42 Kingsway, London, WC2



HIRE

AND COMPRESSORS — portable and mobile

a comprehensive fleet of Civil Engineering Plant

-and now **FORK LIFT TRUCKS**



EDDISON everywhere

DEPOTS:
BEDFORD Tel: Cardington 206
BIRMINGHAM Tel: Shirley 3522
BRECON Tel: 330
CARDIFF Tel: 71354/5
DARLINGTON Tel: 3258
DEWSBURY, YORKS. Tel: Heckmondwike 1360
DISS, NORFOLK Tel: 2688
DORCHESTER Tel: 57
EDINBURGH Tel: LIBerton 3221
GLASGOW Tel: Stepps 628
GRANTHAM Tel: 1221 3
IPSWICH Tel: 57021
KINGSTON-ON-THAMES Tel: KINgston 0066/7
MANCHESTER Tel: Ramsbottom 2521 2
NEWTON ABBOT, DEVON Tel: 1181
SOUTHAMPTON Tel: Bishop's Waltham 137

Head Office and Works: BELTON, GRANTHAM, LINCS.

EP 57 A



"Your call to CMC, Sir!"

"He's a pleasure to work for now, and I'm sure it's because he's dealing with Blue Circle. Take this call to their technical department for instance. He'd never been able to get such helpful service so fast from any other firm. He says there isn't much they don't know about cement up at Blue Circle. I'm no judge of that but I'm glad they know how to keep all their customers happy!"

The Blue Circle group of companies spends over £350,000 annually on research alone. Theirs is one of the most advanced and best equipped laboratories in the world. They have geologists, physicists, engineers and chemists investigating raw materials, plant operation, cements of all possible kinds and other products based on cement. The effect of all this is that there aren't many cement problems for which they can't give an answer.

See CMC about Cement!

Make use of our technical service. For all information please write to:

THE CEMENT MARKETING COMPANY LIMITED, PORTLAND HOUSE, TOTHILL STREET, LONDON, SW1 · Telephone: TATe Gallery 3456
G. & T. EARLE LIMITED, HULL · Telephone: Hull 26121
Selling Organisations of The Associated Portland Cement Manufacturers Ltd.

B



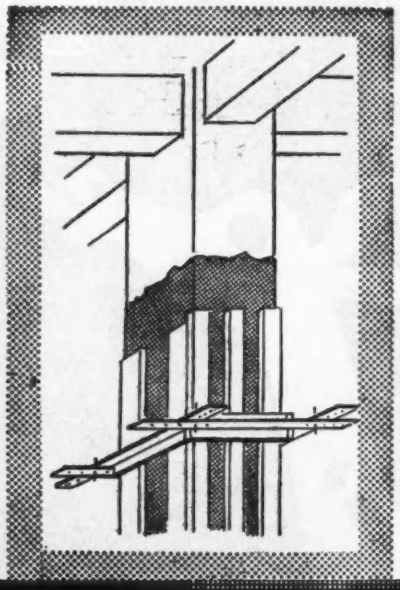
Sometimes it pays to stick your neck out

The juiciest plums are at the top of the tree: perhaps you dream of reaching for them? But that means growing. And growing costs money. Money? Why, that's just what UDT is for. If it's time you added or replaced equipment: if it's time you modernised your production: if it's time you enlarged your premises: then it's time you came to us at UDT. Maybe we can help you to those juicier plums.

UDT HELPS INDUSTRY TO HELP ITSELF

UNITED DOMINIONS TRUST (COMMERCIAL) LIMITED · 51 EASTCHEAP · LONDON EC3

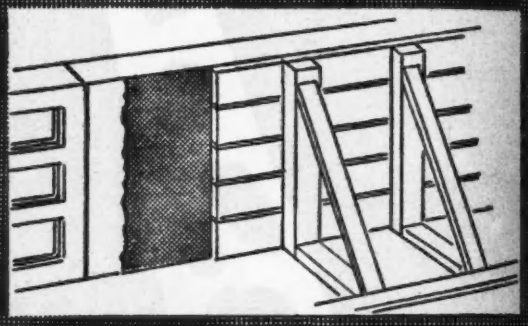
A FINER FINISH AT LOWER COST!



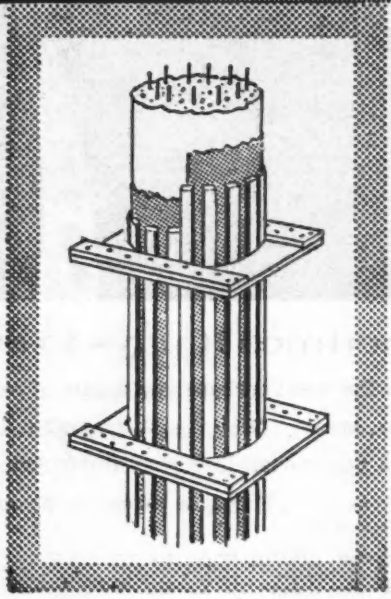
For continuous and repetitive use, where reliability and speed are essential Masonite ¼" and $\frac{5}{16}$" Tempered Presdwood is the ideal form liner made especially for concrete work available in sheets 4' x 9' and 8'.

Large sheets of SWEDISH MADE MASONITE tempered presdwood

SIZES $\frac{1}{8}$" — $\frac{3}{16}$" — $\frac{1}{4}$" — $\frac{5}{16}$"



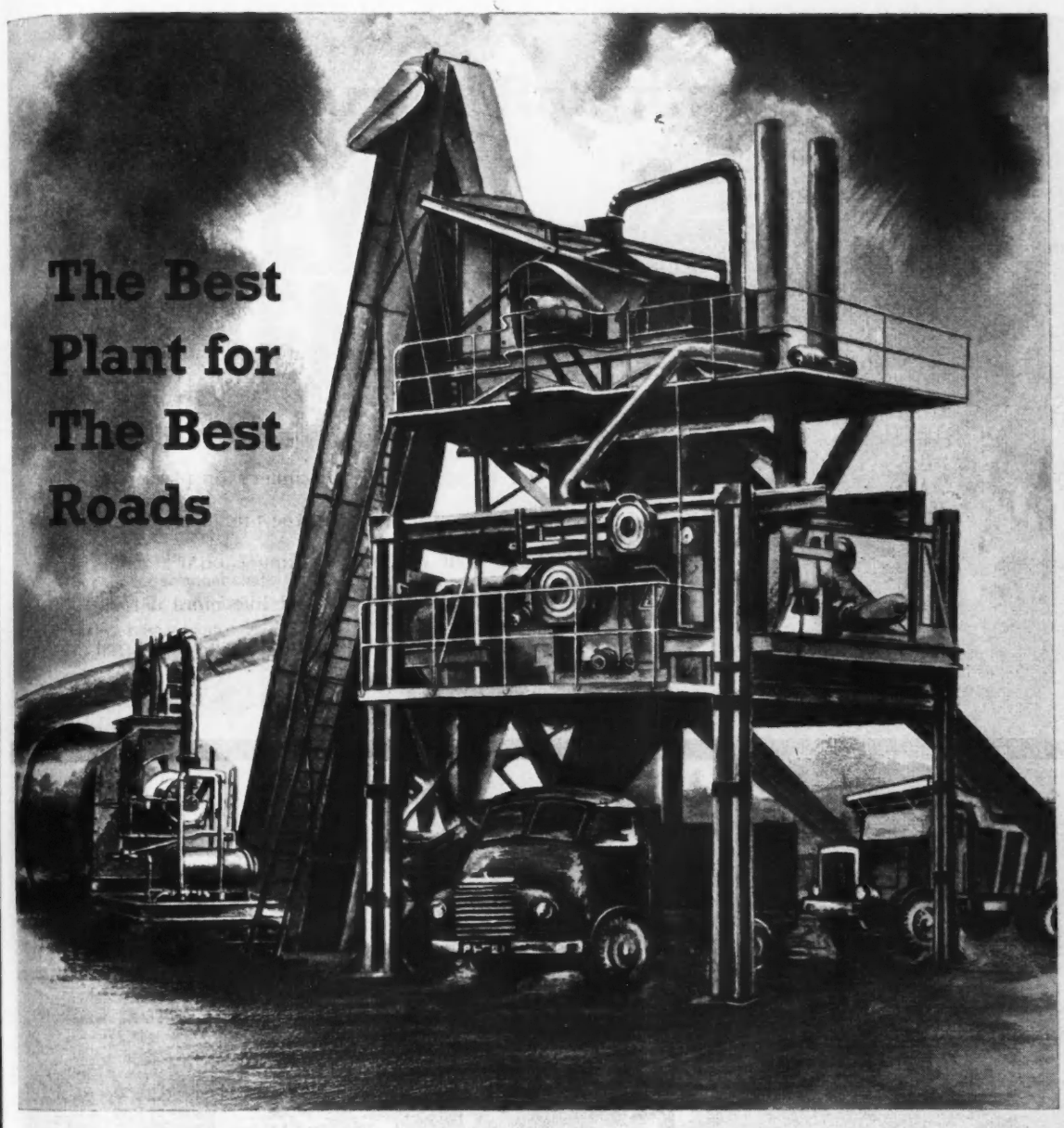
For curved shuttering down to a 9" radius, specify Masonite ⅛" Tempered Presdwood, the 'companion' shutter board that gives a smooth form finished concrete and lightens shuttering assembly work.



MASONITE Registered Trade Mark MADE IN SWEDEN

MASONITE SHUTTERING forms better concrete

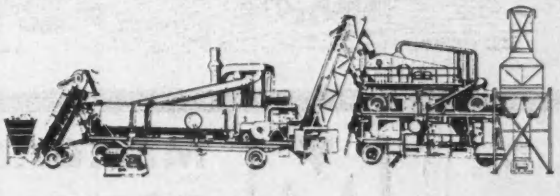
MASONITE LIMITED
BEVIS MARKS HOUSE, BEVIS MARKS, LONDON, E.C.3.
Tel: AVEnue 2846 *Grams: Etinosam, Fen, London*



Incorporating a patented mixing action which literally leaves no stone unturned, Pegson-Wibau Plant gives strict-to-specification mixes consistently and, with faster batch cycles, production is increased.
Fully automatic or manual operation; portable or fixed plants, capacities up to 120 tons per hour.
Now in operation surfacing the dual carriageway Glasgow to Carlisle main road; also British Motor Corporation factory roads at Bathgate.
Already 12 U.K. operators have installed Pegson-Wibau Plant — the best plant for the best roads.

(Above) Screening and Mixing Section of a Fixed Plant

(Below) Typical layout of a Portable Plant



PEGSON *WIBAU*

tar,
bituminous macadam
and asphalt plants.

Built within the Bentley Group in England under licence from WIBAU, Gelnhausen, W. Germany, by

PEGSON LTD · COALVILLE · LEICESTERSHIRE · Tel: 1234 (10 lines)

London Office : Iddesleigh House, Caxton Street, S.W.1. Telephone : Abbey 2373.

Scottish Office : 7, Lister Road, Hillington Industrial Estate, Glasgow. Telephone : Halfway 1800.

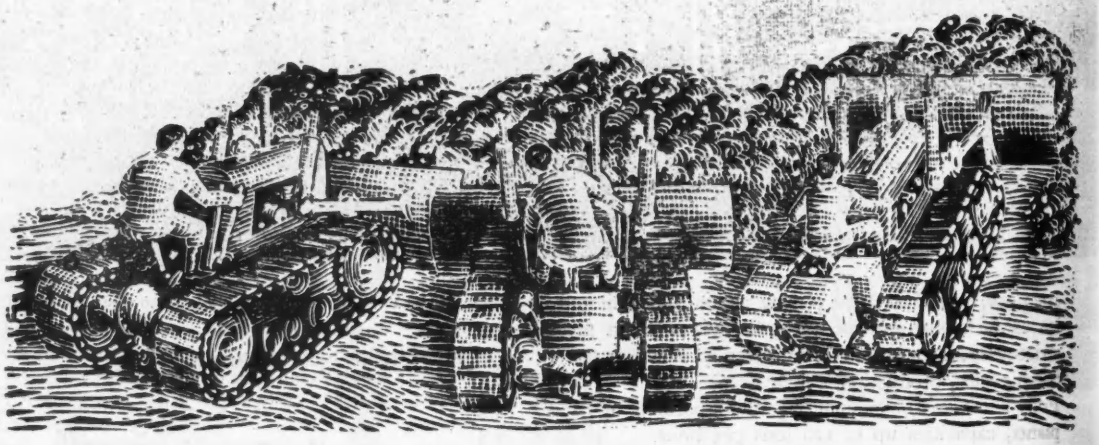


plus

M

There can be no expansion in a competitive business without the regular addition of the latest machinery and equipment. This is where Mercantile Credit facilities can prove such a vital factor in your development. They enable you to acquire the machinery or plant you need out of income and the profits they earn, while your essential working capital remains undisturbed. If you would like more details, please write or telephone to your nearest Mercantile Credit branch.

equals



M

MERCANTILE CREDIT COMPANY LIMITED

Elizabethan House, Great Queen Street, London, W.C.2.
Telephone: CHAncery 1234
Member of the Finance Houses Association

There are Mercantile Credit branches throughout the United Kingdom.
Please consult your local telephone directory for your nearest branch.

over 30 Years of Rammer Know-how

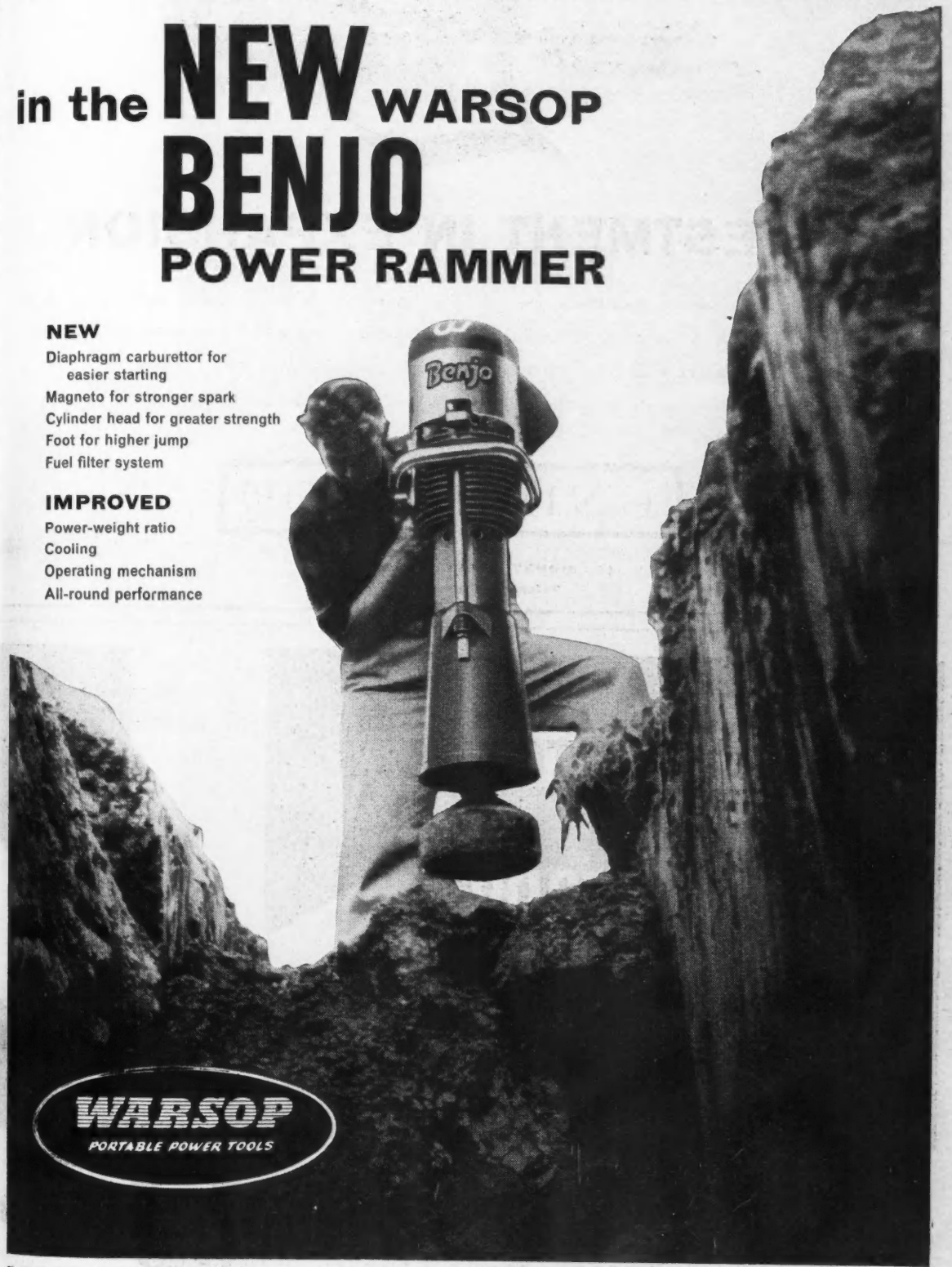
in the NEW WARSOP BENJO POWER RAMMER

NEW

Diaphragm carburettor for easier starting
Magneto for stronger spark
Cylinder head for greater strength
Foot for higher jump
Fuel filter system

IMPROVED

Power-weight ratio
Cooling
Operating mechanism
All-round performance



WRITE or telephone for particulars or a free demonstration.

Warsop Power Tools Ltd., Salfords, Redhill, Surrey. *Horley 4471*

TA6487



INVESTMENT IN EXPANSION

If capital expenditure is worrying you, get in touch with Unifinance. Unifinance specialises in financing all types of industrial equipment. This British company, which is associated with American finance organisations, can offer you more flexible terms, geared to your own business needs—a new, more personal level of service.

UNIFINANCE
(U.K.) LIMITED

103 MOUNT STREET, LONDON, W.1
Telephone: Grosvenor 7918

BUCKTON

TRAXCAVATORS FOR HIRE

Caterpillar Traxcavators, D4, D7, D8
Caterpillar Tractor Dozer/Scrapers, D8
Caterpillar Tractors with Type 80
Birtley 14/18 cu. yd. Scraper, 10 RB 19 RB
and 22 RB Excavators.

BACKED BY ROUND THE CLOCK SERVICE

THE BEST ON EARTH— BUCKTON OF ASHTON

BUCKTON LIMITED 63 Stockport Road, Ashton-under-Lyne. Tel: Ashton-under-Lyne 1848 (3 lines)

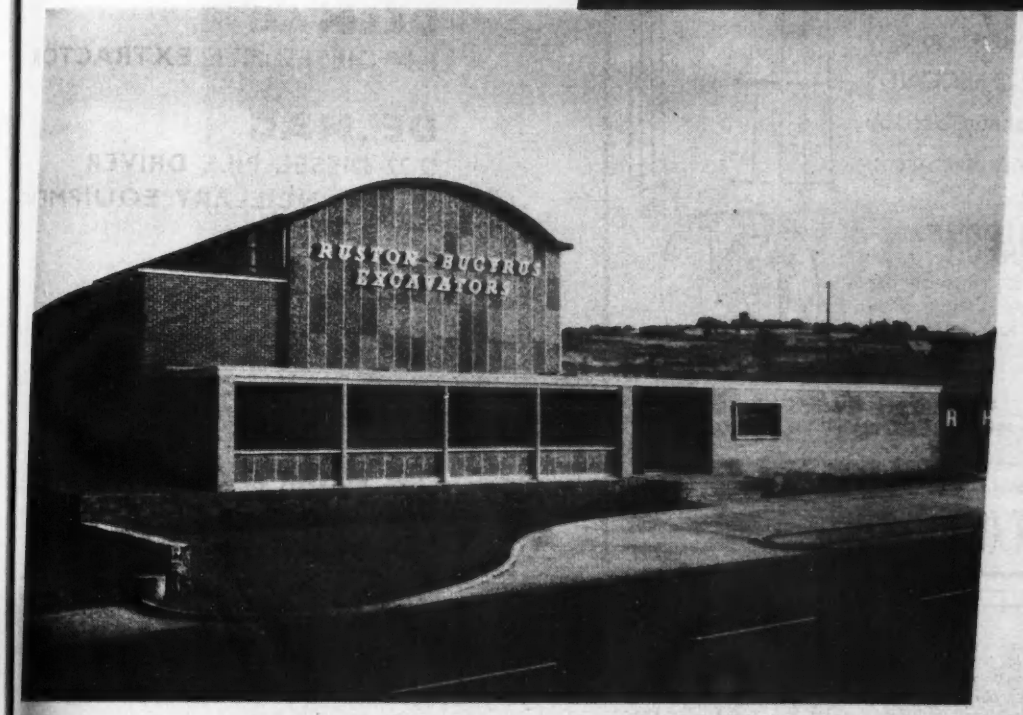
one

two

three

four

five



With the opening of a depot in South Wales, the fifth stage has been reached in the expanding policy of Ruston-Bucyrus to bring Sales, Spares and Field Service closer to their customers.

A sixth depot will be opened in Birmingham at the end of the year and the seventh in Harrogate in 1962.

CARDIFF DEPOT now in full operation at **Cowbridge Road West**

Please telephone for prompt excavator service of any kind

London area: Colnbrook 2385
North-Western area: Warrington 30578
South-Western area: Taunton 7722
Scotland: Shettleston 4264
South Wales: Cardiff 72351

RUSTON-BUCYRUS

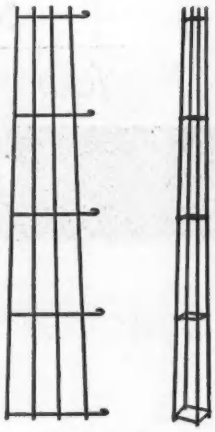
RUSTON-BUCYRUS LTD,
EXCAVATOR SPECIALISTS, LINCOLN

WRIGHT

RIGID WELDED MATS

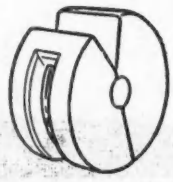
Patent No. 15375/54

increase concrete post strength by 20%. Supplied flat in any length or section for easy transport and storage. Take only 20 SECONDS to bend to shape. Used by leading manufacturers.



"SNAPON" (REGD.)

Split Concrete Snap-on Bar Spacers. Regd. Design. Patent applied for. Immediate delivery.



Used by the leading concrete manufacturers throughout the country

Send for full particulars and samples.

V. WRIGHT (LEEDS) LTD., LANESIDE MILLS, CHURWELL, Nr. LEEDS
Telephone: Morley 4191

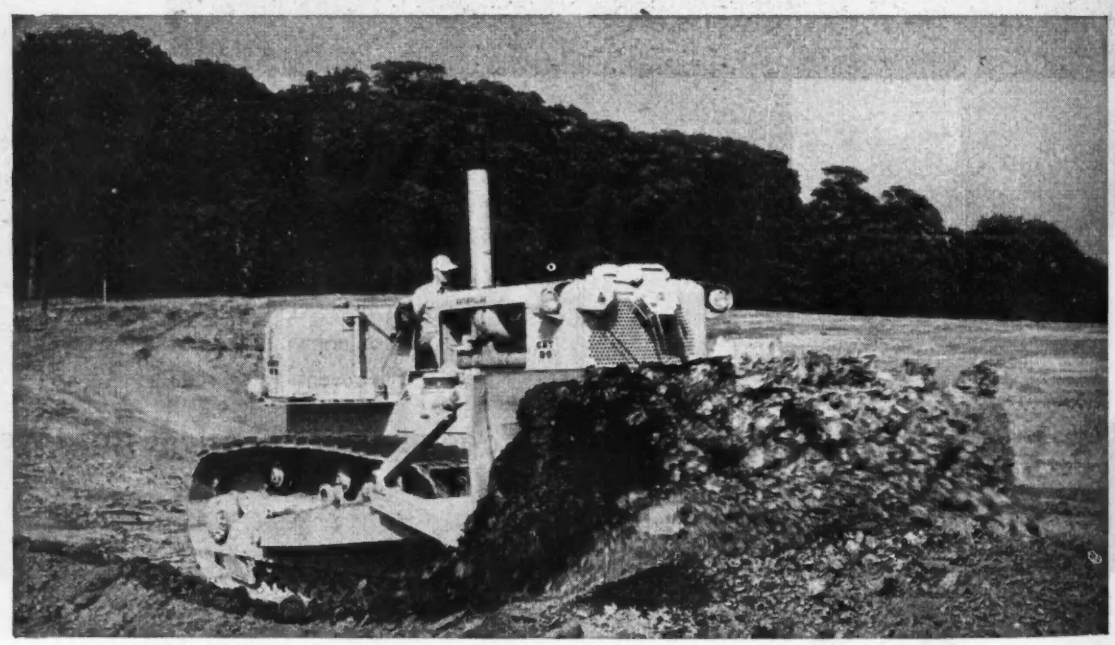
FOR IMMEDIATE HIRE

DELMAG
P.14 DIESEL PILE EXTRACTOR

DELMAG
D.22 DIESEL PILE DRIVER WITH ANCILLARY EQUIPMENT

Write or phone:

BURLINGTON PLANT & HIRE LTD.
BURLINGTON WORKS, ABBEY RD.
PARK ROYAL, LONDON, N.W.10.
Tel. ELGAR 6777 (4 lines)



Let us remove your Overburden the modern way with a fleet of Caterpillar Bulldozers and 18/25 cu. yd. Scrapers, or let us Stockpile your material for the Winter Months.

YOUR SITE INSPECTED AND ESTIMATED FREE OF CHARGE

'PHONE: NOTTINGHAM 50681 FOR PROMPT EFFICIENT SERVICE

GAYLORD, EDWARDS & CO. LTD., CARLTON ROAD, NOTTINGHAM

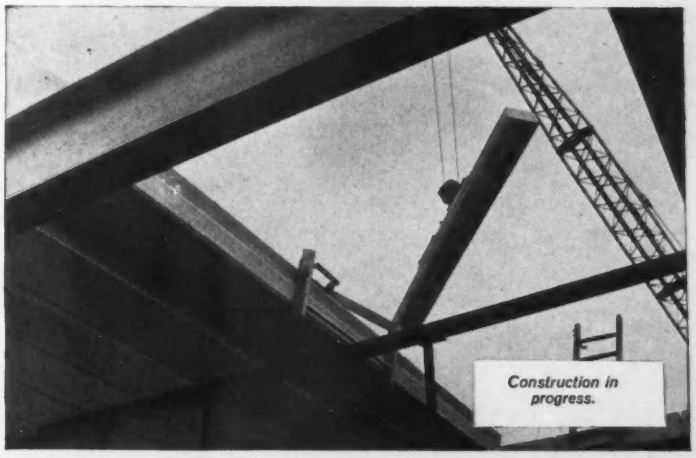
roofing quickly constructed

with large-span lightweight, insulating

THERMALITE YTONG

reinforced units

A LAING COMPANY





Chartered Architects: Messrs. Farmer and Dark, Poole, Dorset.
Client: Aish and Company Limited, Poole, Dorset.

Specially trained Thermalite teams are now in operation delivering and erecting Thermalite Ytong reinforced roofing units. In addition to the speed of construction, facilitated by ease of fixing, this roofing offers many further advantages including:

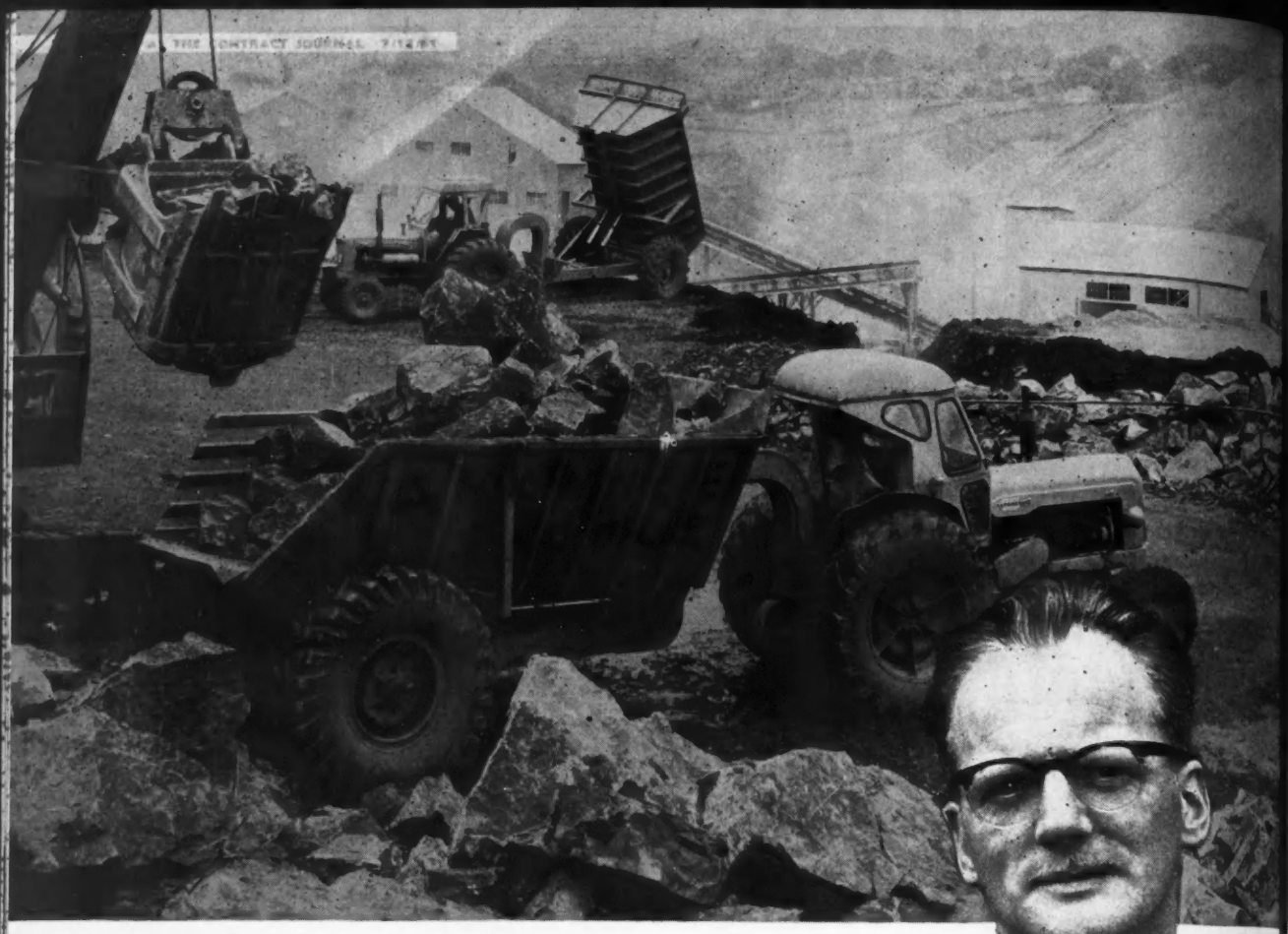
* Lightness with loadbearing. Dry density range of 30-40 lbs/cu. ft.
* 'Built-in' thermal insulation.
* Excellent fire resistance complying to B.S. 476 Part 1.

For full technical details of roofing, internal and external wall units write to:

THERMALITE YTONG LIMITED
Hams Hall, Lea Marston, Sutton Coldfield, Warwickshire.
Telephone: Coleshill 2061

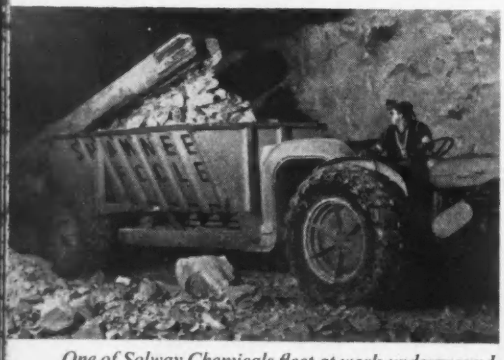
Factories at: Birmingham · London · Manchester
Newcastle · Reading

1

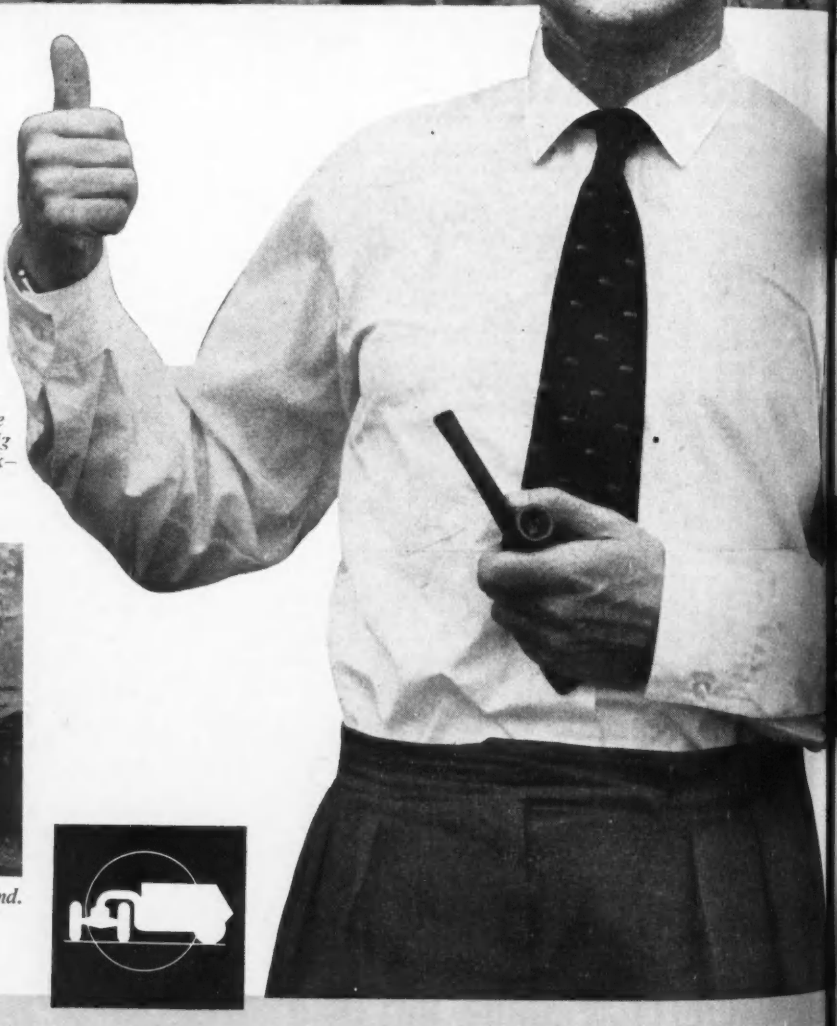


"Here's why we go on buying Shawnee Poole," says Mr. Charlton, Mine & Quarry Manager of Solway Chemicals Ltd.

"We are proving over and over again that Shawnee Poole has definite advantages over any other haulage equipment we've looked at. They're safe and stable and give maximum driver safety. Their front wheel steering makes them faster and safer on haul roads, and the 21 ft.'U' turn cuts site preparation and *increases production. Add to these definite advantages, the big target area and a 60° angle of tip and you've got faster loading, a quicker discharge and a biz saving in time and money all round the clock– that's why we go on buying Shawnee Poole."*



One of Solway Chemicals fleet at work underground.



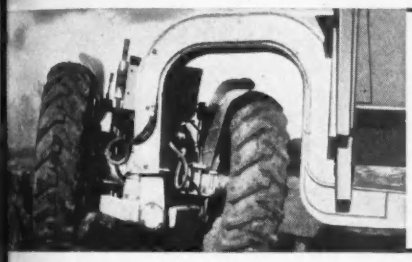
Shawnee Poole

SYSTEM OF MOBILITY AND ECONOMY IN EARTHMOVING AND INDUSTRIAL HAULAGE

The Shawnee Poole System is manufactured under British and Foreign patents granted and pending

Here's why we go on buying Shawnee Poole

Only Shawnee Poole gives you all these advantages

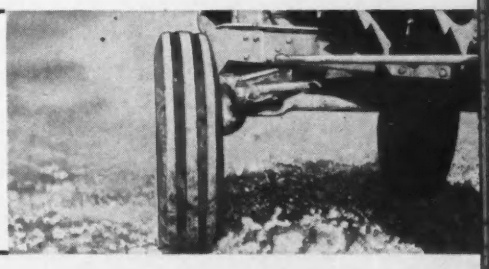


SAFETY AND STABILITY

The Shawnee Poole coupling is mounted *underneath and forwards* of the centre line of the tractor's rear axle, ensuring maximum stability and complete driving wheel adhesion. Only the Shawnee Poole coupling with its low-level mounting points ensures maximum driver safety. The tractor is quickly detachable from the hauler for service requirements.

CONVENTIONAL FRONT WHEEL STEERING

Only Shawnee Poole has all the advantages of conventional front wheel steering for safer, faster travel speeds on haul roads or cross country with none of the disadvantages of hydraulically linked steering which is costly, power consuming and non-positive.





SHORTEST TURNING CIRCLE

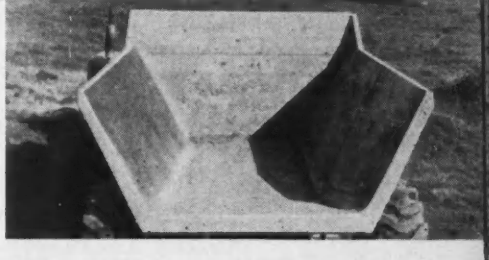
Only Shawnee Poole has the ability to turn in 18 to 23 feet—less than its own length—resulting in the shortest turning circle of any equipment of this kind and considerable savings in time and cost of preparing loading areas and tips.

BIG TARGET AREA AND CLEAN DISCHARGE

Only Shawnee Poole—now available in Two Models—gives you a big target area for easier, faster loading, with a clean open design for quick and effective discharge of wet and dry materials.

. . . WHICH ALL ADDS UP TO ECONOMY PLUS

Thousands of hours of user experience prove the many advantages of the Shawnee Poole System of Mobility and Economy in Earthmoving and Industrial Haulage.



Ask us for a Job Survey on your site

SHAWNEE POOLE LIMITED, READING, ENGLAND. *Tel: Sonning 2621. Grams: Mobecon, Reading*

A member of the Adamant and Western Group.

GOULD

FOR

CRANE HIRE



Illustrated
25 TON NEAL CRANE

COUNTRYWIDE SERVICE

MOBILE
CRAWLER
LORRY MOUNTED

JIBS to 100 FEET

SINGLE LIFTS to 25 TONS

TANDEM LIFTS to 50 TONS

DEPOT Phone NEWPORT MON 73121

Members of the Lorry Mounted Crane Association

GOULD PLANT LIMITED

HEAD OFFICE
EMPIRE HOUSE, MOUNTSTUART SQUARE
CARDIFF
TELEPHONE: 20732

HIRE · SALES · REPAIRS
COMPRESSORS · MIXERS
DUMPERS · PUMPS
AND ALL CONTRACTORS' PLANT

WHiTLOCK

DINKUM DUMPER 70

GOES ON -
WHERE OTHERS GO IN!



Main Distributors for

NORTH LANCS., NORTHUMBERLAND, DURHAM, CUMBERLAND & WESTMORLAND

MARSHALL BRANSON LIMITED

CHAIN BRIDGE ROAD
BLAYDON ON TYNE, CO. DURHAM

Telephone Blaydon 390 (5 lines). Telex. Blaydon 53125. Radio Controlled Service Vans

DEMONSTRATIONS · SALES · SERVICE · PART EXCHANGES · HIRE PURCHASE

Also consult us for the complete range of WHiTLOCK Hydraulic Excavators and Shovels

keep things moving fast with the

NCK RapieR 405 DRAGLINE

When high output has to be achieved the NCK-RapieR 405 dragline will do the job faster—and more cheaply. Its 1½ cu. yd. bucket is worked to full capacity, with optimum swing and rope speeds. Wide tracks give the machine stability to reach over more than 90 feet. Continuously high production and shortest possible down-time are well proved characteristics of the 405—for the man who gets things done faster.



36 in. wide tracks

1½ cu. yd. bucket capacity

Roller-guide fairlead, fully revolving

Booms to 90 ft.

High boom strength

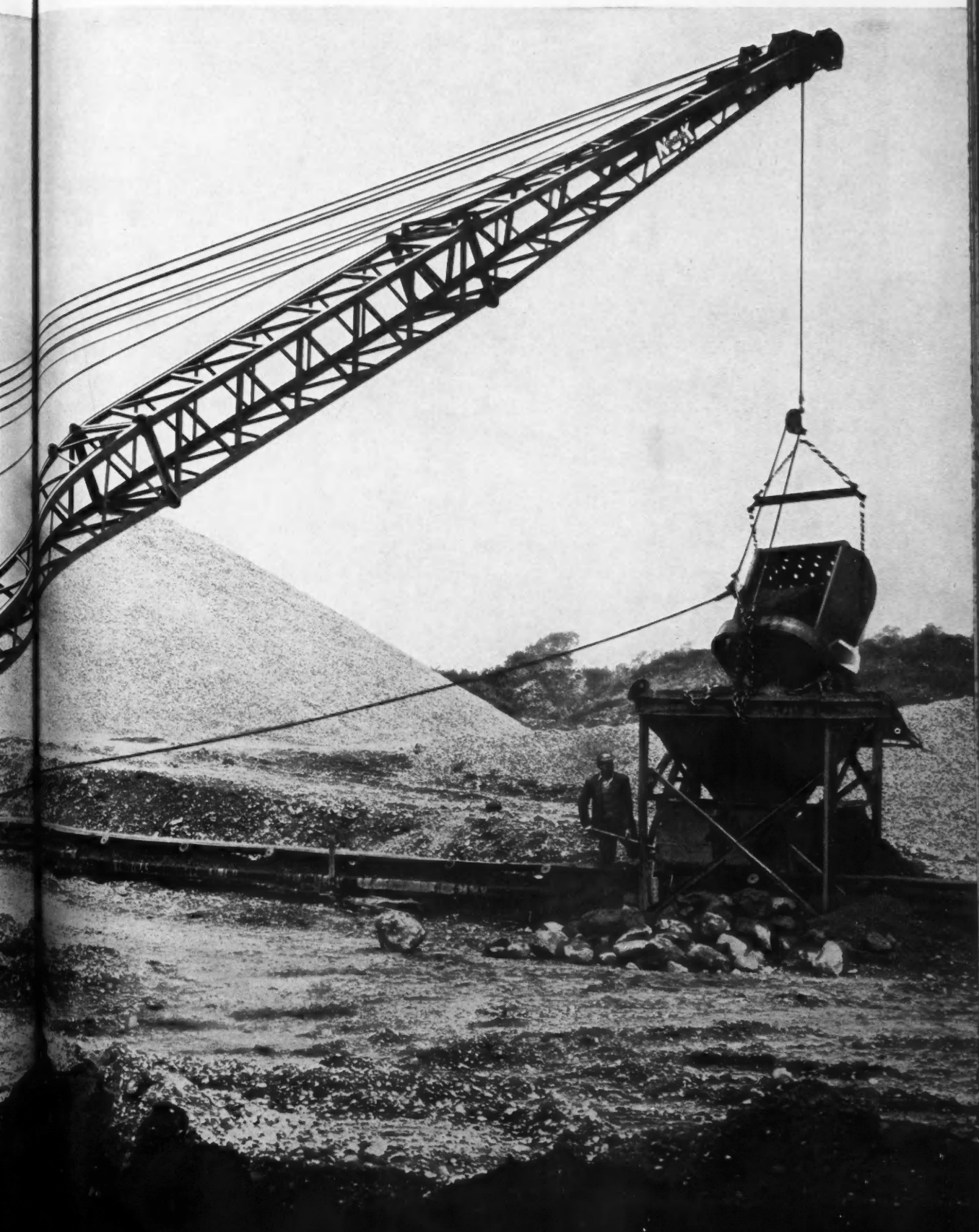
Power-assisted clutches

Drag-rope pull 20,300 lb.

Get full technical details from

NCK-RAPIER LIMITED

32 Victoria Street, London, S.W.1.
Telephone: ABBey 6738 Cables: Excasales, London
A NEWTON CHAMBERS COMPANY





something stirred...

A good road once, smooth, pleasant to drive on. But not far below were the soft spots. Old-fashioned rolling had ignored their existence —but the traffic didn't. Soon came subsidence, holes and corrugation. The subsoil had yielded.

Armstrong Whitworth have the solution: a road base compacted by stresses at least equal to those eventually imposed on the surface. Armstrong Whitworth have the equipment: Self-propelled, Multi-wheeled Compactors. Isostatic suspension ensures equal loading of all wheels at all times on all surfaces. The pneumatic-tyred wheels seek out soft depressions, compact base course and embankment to a stable whole.

Result: deep, traffic-dislocating base course repairs are avoided and the consequent saving of cost of large labour repair gangs soon more than repays your investment in Armstrong Whitworth ALBARET compaction.



'ISOPACTOR' Automotive
22-ton, 9-wheel pneumatic-tyred Compactor.

'AUTOPACTOR' Automotive
15-ton, 7-wheel, smooth-tyred Compactor.

'PULLPACTOR'
4-wheel, pneumatic-tyred for push/pull operation.

Build a firm foundation for the future . . . send for full information to:

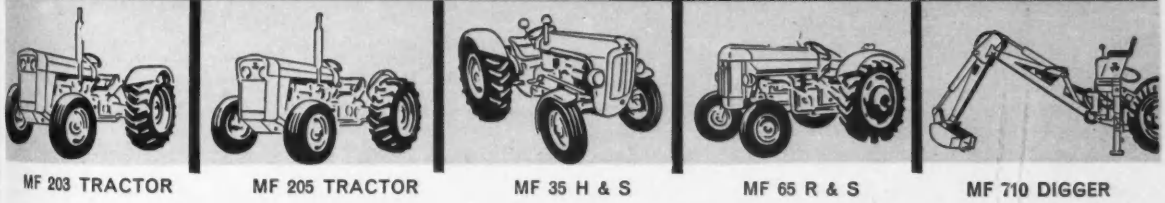
ARMSTRONG WHITWORTH (METAL INDUSTRIES) LTD

Close Works · Gateshead 8 · Co. Durham · Tel: Gateshead 71261

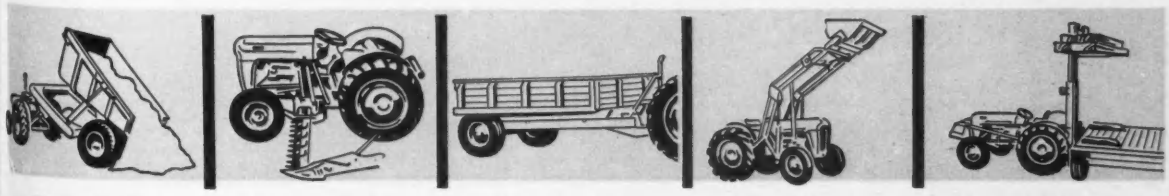


NOW! A COMPLETE 'ON SITE' RANGE

MF 702 Loader. Massey-Ferguson set the fastest-ever pace for loader work with revolutionary INSTANT REVERSE. Now it's forwards or backwards at the touch of a pedal—no more gear-changing. Get your distributor to show you.



MF 203 TRACTOR | MF 205 TRACTOR | MF 35 H & S | MF 65 R & S | MF 710 DIGGER



MF 16 DUMPER | MF 736 MOWER | MF 717 TRAILER | MF 735 LOADER | MF 737 FORK LIFT

MASSEY-FERGUSON



THE ASSOCIATION OF CRANE MAKERS

A MEMBER OF THE STEEL GROUP OF CRANE AND EXCAVATOR MANUFACTURERS

COLES

QUALITY COSTS NO MORE

Quality usually implies extra cost. **Usually** . . . but not always. For, sometimes, by a rare combination of constructional know-how and highly efficient factory organisation a product is turned out which not only stands pre-eminent in its field but **also** sells at a keenly competitive price.

Such a product is the Coles mobile crane. Acknowledged to be supreme in its class — more Coles are now in use than any other make — the Coles has built up a proud reputation for smooth diesel-electric efficiency. Fast-travelling, full-slewing, it possesses a remarkable capacity for prolonged heavy duty under the most arduous conditions — and yet, we repeat, **Coles cost no more.**

COLES CRANES

THE NAME THAT CARRIES WEIGHT

Coles cranes is a Registered Trade Mark

STEELS ENGINEERING PRODUCTS LIMITED

STEEL HOUSE, EASTCOTE, MIDDLESEX.
SALES AND SERVICE: LONDON, BRISTOL, BIRMINGHAM, MANCHESTER, LEEDS, NEWCASTLE, GLASGOW.



I'm for

EIMCO!

"The Eimco 850 is a real winner—I'm as fresh as a daisy at the end of a day—it's so comfortable to handle. My boss is happier too—the 850 has speed and manoeuvrability and capacity which gets more moved *more quickly* than ever before. I believe *his* boss is happier still—the 850 only cost him £5250 ex-works!"

* 25000 lb. payload
* Finger tip power steering
* Climbs 1 in 4 fully laden
* Speeds up to 24 m.p.h.
* Wheel compensation irons out bumps
* Low centre of gravity

850

dump truck

AVAILABLE ONLY FROM EIMCO

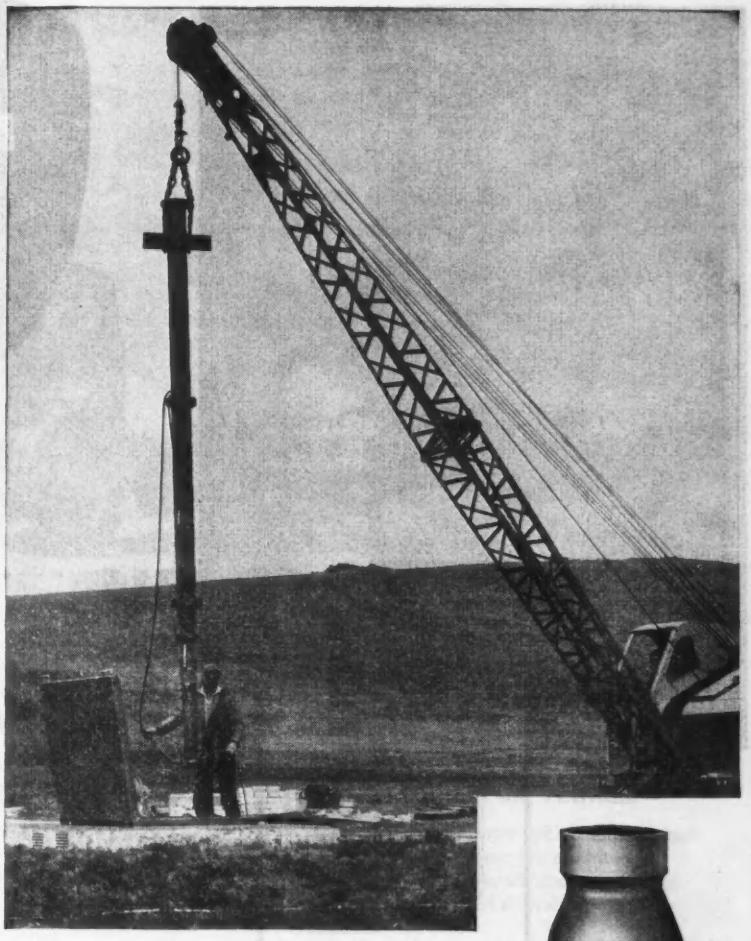
EIMCO (Great Britain) LTD

Team Valley, Gateshead 11, England · Telephone: Low Fell 7-7241

London Office:

Princes House, 190 Piccadilly, London, W.1 · Telephone: REGent 2184

ROUND THE WORLD WITH Sumo



Sumo to raise 2,000,000 gallons a day from the depths of Dartmoor

Eighteen 16,000 g.p.h. Sumo pumps, supplied to the Southern division of the North Devon Water Board will soon be lifting this quantity of water from a vast underground basin beneath Taw Marsh, a rocky part of Dartmoor, 1170 feet above sea level. This amazing natural reservoir, discovered by the Engineer to the Board, will provide a large part of Devon with water during summer droughts. Already three wells, each with two 8" pumps on 6" motors (6½ H.P.), are installed. Eventually, nine wells will be sunk on the east side of the River Taw. Some of the supply will be devoted to maintaining a minimum flow in the river, well known to anglers for its salmon and sea-trout.

Pumping stations had to be out of sight as this area is part of the Dartmoor National Park. Only the access covers of the wells project above the ground and these will be camouflaged to blend with the surroundings. Silent and unobtrusive, the Sumo submersible pump is the ideal choice for this kind of installation.

Engineer, North Devon Water Board (Southern Division): K. J. Young, Esq. Consulting Engineers: Rofe & Raffety, Buckingham Gate, London, S.W.1.

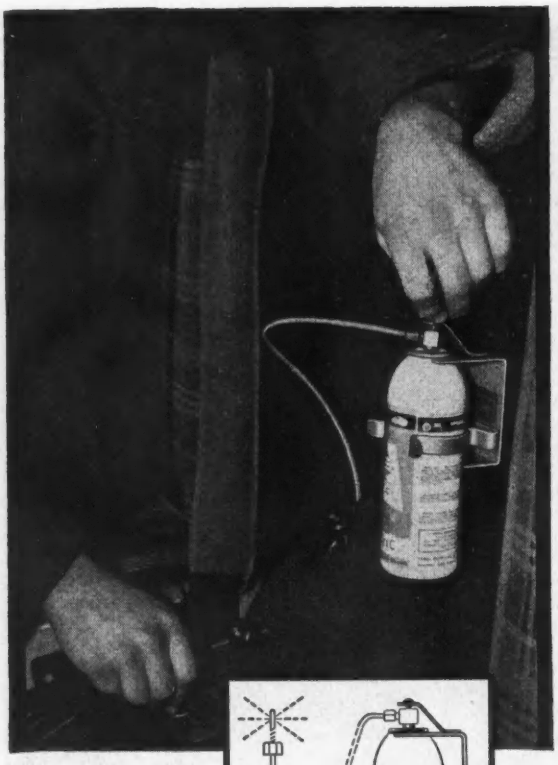


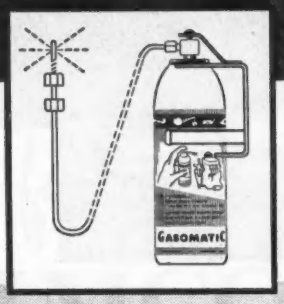
SUMO PUMPS

for long running reliability

SUMO PUMPS LTD., SCHOMBERG HOUSE, 82 PALL MALL, LONDON, S.W.1. TEL: TRA 1954

(A subsidiary of Stone-Chance Ltd. Makers of Austinlite electrical specialities and Stone-Chance lighthouses)





GASOMATIC UNIT No. 21

★ EASY STARTING IN ALL WEATHERS
★ SAVES YOUR BATTERIES
★ LUBRICATES THE UPPER CYLINDER
★ REDUCES CRITICAL WARM-UP PERIOD
★ REDUCES BORE WEAR

Gasomatic Unit No. 21 is a remote control for use with Gasomatic high efficiency Starting Fluid. At the touch of a button the mixture of hydrocarbons, upper cylinder lubricant and anti-corrosive agents is added to the normal mixture of fuel and air. The enriched mixture gives instant ignition when sparked or compressed—thus serving both petrol and diesel engines. Diesels don't need cylinder or manifold heaters. Starting on time means delivering on time, contracts and orders efficiently executed, not forgetting the gratitude of your drivers.

Gasomatic Unit No. 21 costs 19/6d. the Standard Can of Gasomatic costs 16/8d. Simple fitting instructions are supplied.

Obtainable from leading garages and dealers or direct from the manufacturers:

START PILOT LIMITED
27 Ashley Place, London S.W.1
TATe Gallery 8631

Plant Hire

ring RODney 2215

COX

OF CAMBERWELL

H. COX & SONS (Plant Hire) LTD.,
33, Southampton Way, Camberwell, London S.E.5.

The Hire Service that never lets you down.

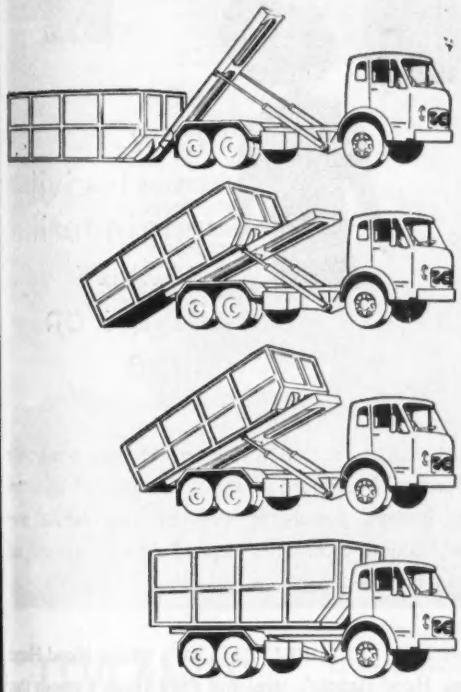
THE DEMPSTER DINOSAUR SYSTEM



IS YOUR MONEY WORKING?

NEW!

a one-man operated materials handling system



LESS IDLE TIME—MORE WORK PER VEHICLE

The system comprises the Dempster Dinosaur vehicle and a series of purpose-made detachable containers. These are mounted and demounted hydraulically from ground level, dock, or on free standing legs, the operation being controlled entirely by one man — the driver — from his cab.

The Dinosaur Unit comprises a hydraulically operated tipping frame, incorporating a double-acting pick-up bail which is capable of handling loads of up to 30,000 lb and 40 cu. yd capacity.

A comparatively low capital outlay provides all the advantages of fleet operation with fewer vehicles.

Labour costs are reduced — one man only for collecting, transporting and unloading or setting-down intact.

Using the standard basic rack any form of container can be used, including tanks, hoppers, site offices etc., and all-enclosed containers can also be used as temporary or permanent storage units.

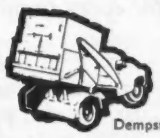
On contract work, the economically priced containers of from 10 — 40 cu. yd capacity can be sited at the point of material accumulation — avoiding standing time for the vehicle — collection can be effected in a matter of minutes.

Send for further details of this remarkable system now, or better still, let us make an appointment for one of our engineers to call with our portable film unit, showing the Dinosaur in actual operation.

Powell Duffryn Engineering Co. Ltd.

A MEMBER OF THE POWELL DUFFRYN GROUP

PDE



Dempster Dumpster LFW



Dempster Dumpster GRD



Dempster Dumpmaster

H P 7481

FOR HIRE

HEAVY CONSTRUCTIONAL PLANT

DERRICKS	40 tons—131ft. jib at 110ft. radius (20 tons at 128ft. radius, 161ft. jib).
	20 tons — 95ft. radius — 125ft. jib. Jib extensions to 140ft.
	7 tons—75ft. radius—120ft. jib.
	All - Electric Stiff Legged Derricks.
CRANES	Mobile and Crawler up to 45 tons capacity.
	Self - contained Steam Crawler Cranes, eminently suitable for piling operations, capable of handling and driving 9B3 McKiernan-Terry hammer.
PILING	Hammers — McKiernan-Terry No. 3 to 10B3, Delmag D12, D22.
	Extractors — Nos. 20, 80, 120, HD10.
BOILERS	Extensive range.
TRACTORS	D8, D7, D4, etc.
EXCAVATORS	Up to 2¼ cu. yd. capacities.
WINCHES	7-30 tons. Manual and Electric.
ACCESSORIES	Crowd Shovels for 38RB and Lima 802.
	Le Tourneau Crane — suitable for D8 (towed unit).
	Hyster Crane—suitable for D7 or D8.
	Durogun Pneumatic Concrete Placer.
	Hough Loading Shovel, 2½ cu. yd. capacity.

DEW

CIVIL ENGINEERING PLANT HIRE

G. DEW & COMPANY LIMITED
MAIN ROAD
OLDHAM

PLANT HIRE DEPT.
Tel. MAin (Oldham) 8291
Telex. 66473



ROPE IS MUCH IN EVIDENCE on the busy construction sites of today. Winching out timber, excavating foundations, hoisting girders, positioning pre-cast concrete....many modern building techniques depend on the strength and reliability of rope.

STRENGTH? RELIABILITY? That's where Hood Haggie come in. Hood Haggie's steel and fibre ropes embody these qualities in good measure. Which is why they are being increasingly specified for the tougher civil engineering applications at home and overseas.

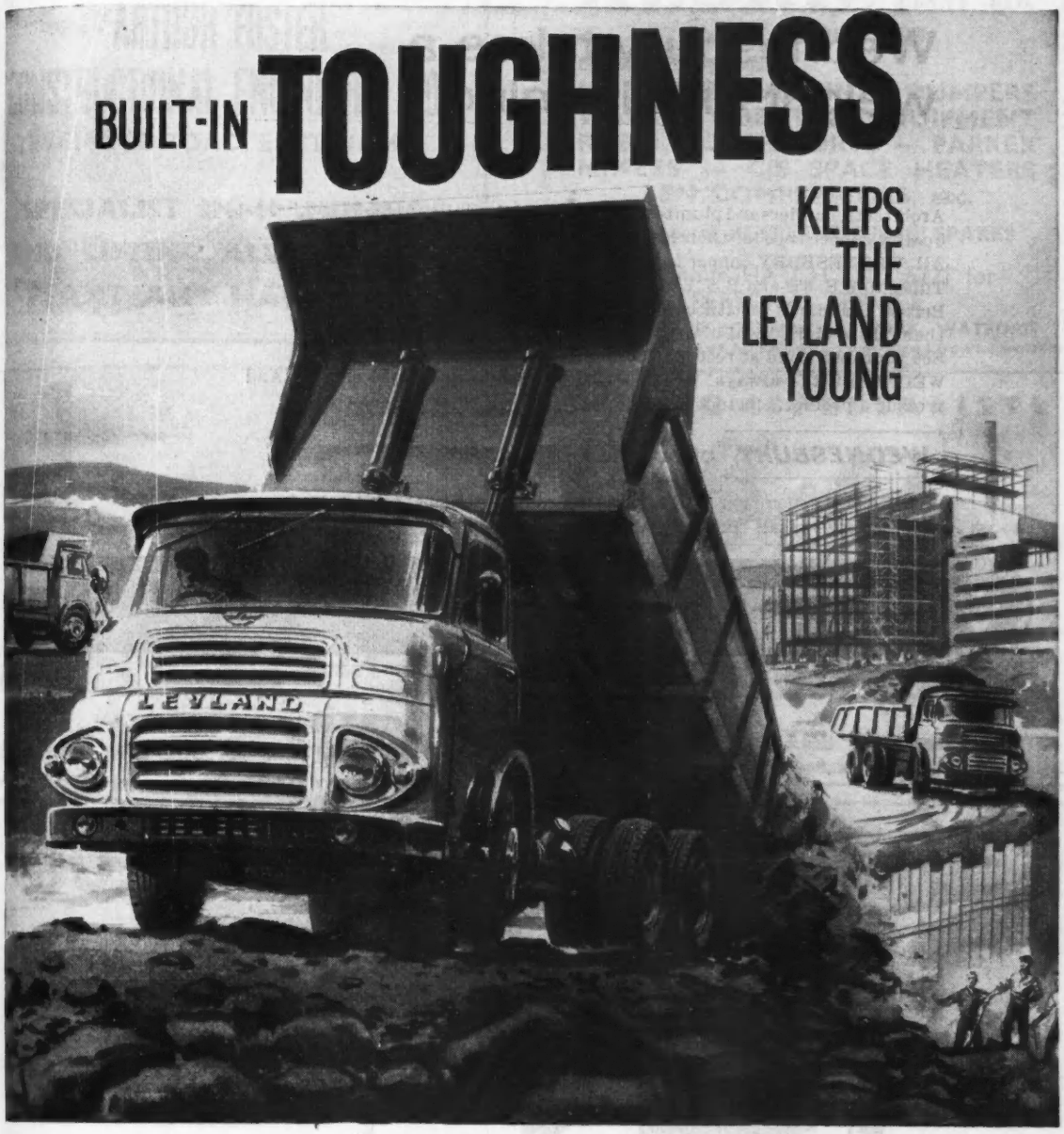
HOOD HAGGIE ROPES

for every branch of industry

R. HOOD HAGGIE & SON LTD.
CONDERCUM HOUSE, 171 WEST ROAD, NEWCASTLE UPON TYNE 5
TELEPHONE: 39111 TELEX: 53114

LONDON OFFICE: 85 GRACECHURCH STREET, E.C.3.
TELEPHONE: MANSION HOUSE 7521

BUILT-IN TOUGHNESS KEEPS THE LEYLAND YOUNG



LEYLAND'S GREAT NEW POWER-PLUS SERIES

Leyland trucks have always enjoyed a reputation for defying age. But with their new Power-Plus 14/24 g.v.w. series, Leyland have built a range which is going to break all previous records for long life at low cost.

Almost every component, from tailboard to bumper, has been strengthened (and in some cases double-strengthened) to stand up to the most gruelling conditions any truck can expect.

This in-built strength, plus a choice of major units including 140 h.p. or 200 h.p. engine . . . 5, 6 or 7-speed gearbox . . . trunnion-mounted or non-reactive suspension (on multi-wheelers) . . . power-assisted clutch . . . all-steel or glass fibre cab and many other advance design features ensure that for performance and durability, the Power-Plus series is Leyland's finest achievement yet. And you'll agree once you've tried it.

LEYLAND MOTORS LTD.
LEYLAND LANCS.

Sales Division: Berkeley Square House,
Berkeley Square, London, W.1. Tel: GROsvenor 6050

DIESEL Leyland TRUCKS

Wednesbury takes a weight off his mind

Architects, builders and plumbers meet the responsibility of selecting the best quality copper tube for their installations by insisting on WEDNESBURY. All WEDNESBURY copper tube is solid drawn to the highest standards. Tubes to B.S. 659 and B.S. 1386 are free from carbon and oxide films. The British Standards Institute recognise this exceptional quality with their "Kite Mark" seal of approval.
Set your own mind at rest on the question of copper tube. Specify WEDNESBURY—always! WEDNESBURY stock a wide range of sizes. And provide a prompt, efficient delivery service to all parts of the country.

WEDNESBURY **of course!**

WEDNESBURY copper tube is playing an important part in a recent development—small bore central heating installations.

APPROVED TO BRITISH STANDARD

T.2



The Wednesbury Tube Co. Ltd.
Bilston, Staffordshire
Tel: BILSTON 41133 (9 lines)

Warehouses at London (Elgar 7014) Manchester (Trafford Park 1444) and Cardiff (22502).
Manufacturers of PLASTIC TUBE & FITTINGS: STEEL TUBES & FITTINGS: STEEL TUBE FABRICATIONS: MALLEABLE TUBE FITTINGS: LEAD SHEET & PIPE.

Telephone : GRA 3401-3

ARTHUR FOSTER
CONSTRUCTIONAL ENGINEERS LTD.
STEVENAGE ROAD, EAST HAM, E.6

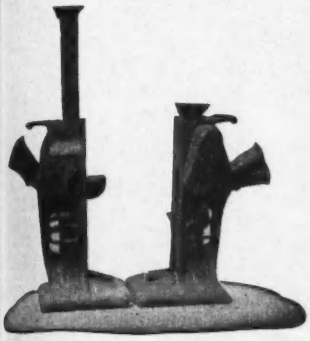
SPECIALIST IN HANDLING AND LIFTING ALL TYPES OF PLANT AND MACHINERY

KEBRIC PLANT LTD.
THE PLANT SPECIALISTS

Distributors and Agents for :—
JCB ROAD MACHINES DUMPERS
WACKER VIBRATING EQUIPMENT
ROBEL SCAFFOLDING — PARKER MIXERS — CIE SPACE HEATERS
BEN COMPRESSORS, etc.

Stockists of PETTER ENGINE SPARES

Telephone HATCH END 6221 for PERSONAL SERVICE
4 THE MEAD, CARPENDERS PARK, WATFORD

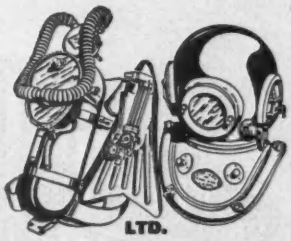


12 TON RATCHET JACKS
HEAD and TOE LIFT
COMPLETE WITH HANDLES
BRAND NEW
£12 each

L. W. VASS LIMITED
AMPTHILL, BEDFORD. Tel: AMPTHILL 3255-6

DIVING SPECIALISTS

Underwater Surveys.
Underwater Cutting, Welding, Explosive work.



DIVERS, FROGMEN AND PLANT HIRED IF PREFERRED

LTD.
UNDERWATER CONSULTANTS
Immediate and efficient teams available anywhere in the world

For Diving Contracts, consult:
MARTIN WELDING AND CUTTING CO. LTD.
Tel: (day) Dartford 24139 **DARTFORD, KENT** *(night) Farningham 2452*

802 LIMAS FOR HIRE

JIBS UP TO 120 ft. PLUS FLY JIBS

We have the largest Fleet of Crane Rigged 802s in U.K.
LIFTING CAPACITY EXCEEDS 30 TONS

ROADS AND RUNWAYS
(PLANT HIRE) LTD.,

26 VICTORIA STREET, LONDON, S.W.1. *Tel : ABBey 4905 or BRIDGEND 4163*

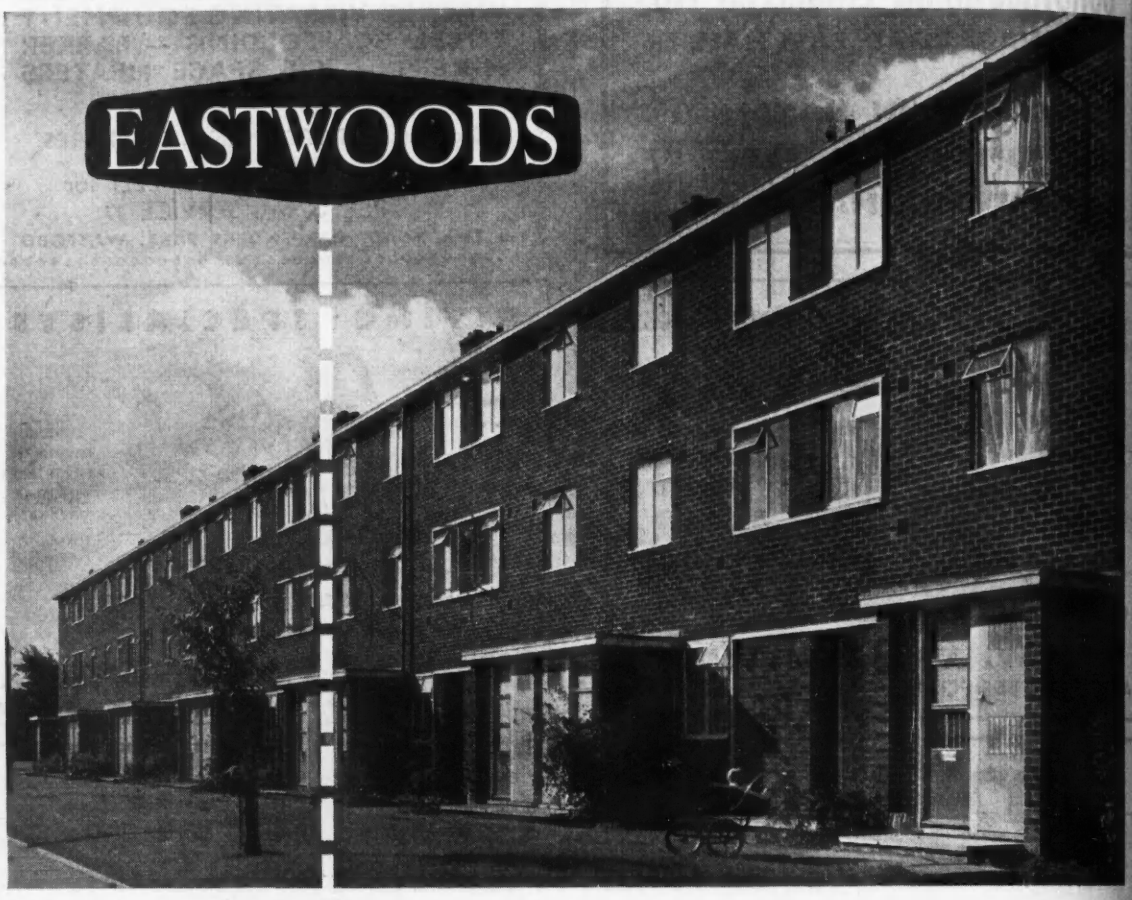
BENFORD

Makers of Concrete Mixers, Cement Silos and Diesel Dumpers.
THE CAPE . WARWICK .
Phone : Warwick 1170 (10 lines.)

LONDON OFFICE
Benford Limited,
Benford House,
Bury Street,
Ruislip,
Middlesex.
Phone **Ruislip 6033**

Maidstone Office: PHONE: MAIDSTONE 7524 and Manchester Office: PHONE: PYRAMID 2039.

facing the future with..



Houses in S. E. London
Contractors: Wates Ltd.
Architect: Mr. K. W. Bland, A.R.I.B.A.

FLETTON FACING BRICKS

build for the future ... confidently with ...

these attractive, yet economic facing bricks made by Eastwoods, who have over 50 years experience in this field of manufacture. Combining economy with durability, their colours and textures make these bricks some of the finest facings yet produced for both suburban and rural housing schemes.

- **GOLDEN RIDGEFACED FLETTONS**
- **BUFF RIDGEFACED FLETTONS**
- **DARK MULTI-COLOURED SANDFACED FLETTONS**
- **BROWN-GREY MULTI-COLOURED SANDFACED FLETTONS**
- **RIDGEFACED MULTI-COLOURED FLETTONS**
- **PLAIN FLETTONS**

Illustrated folder sent on request

EASTWOODS SALES LIMITED

HEAD OFFICE: **158-160 City Road, London, E.C.1.**
Telephone: Clerkenwell 2040 (30 lines)

NORTHERN SALES OFFICE: **39-41 Thorne Road, Doncaster**
Telephone: Doncaster 49256/9

Consult your telephone directory for details of your local depot.

UP AND DOWN the ROAD





LUMLEY (PLANT) LIMITED

A Company of the LUMLEY-SAVILLE Organisation

STRATFORD-ON-AVON
Telephone: 4242 (15 lines)
Telex. Birmingham 31633

LONDON
Tel: ASHFORD
(Middx.) 4191 (10 lines)
Telex. London 24117

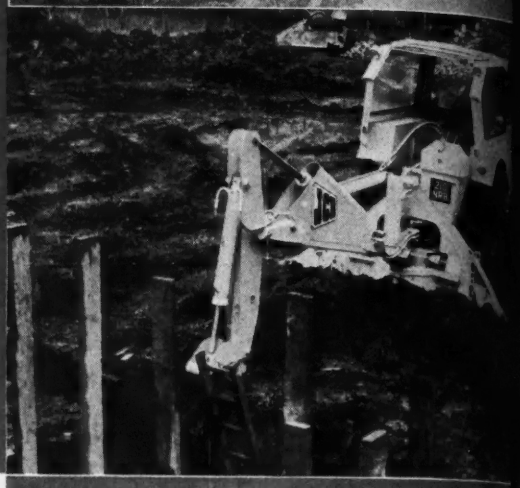
CARDIFF
Tel: CARDIFF 33572/3
Telex. Cardiff 49250

BELFAST Telephone: DUNMURRY 2511 (4 lines)

Hergarth

OF YORK LTD





Distributors for the following . . .

CIVIL ENGINEERS and CONTRACTORS PLANT

4L. Loader

'Higher Loading and Increased Bucket Capacity'

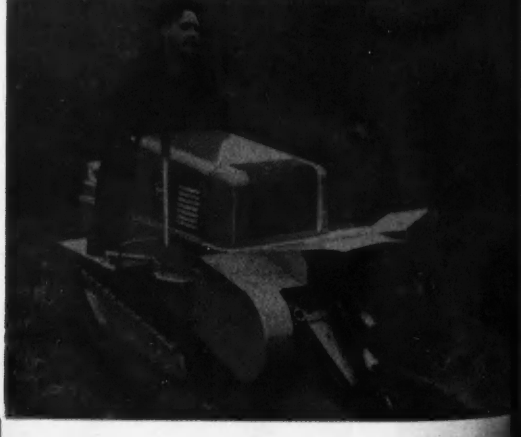
4 Excavator

'Dig Deeper, Faster, Cleaner'



9/15 'LANDRANER'

'Digs, Grades and Lays Tiles in One Fast Operation'



3/12 Super Trencher

'The Small Digger with the BIGGER Performance'

ALSO

HYDRAULIC MACHINERY SPECIALISTS

HAMWORTHY Valve Blocks
PLESSEY Pumps
VICKERS Intra-vane Pump
DOWTY All Range Pumps
SPENBOROUGH Valve Blocks

Backed by . . .

the super L·I·G service

Telephone : YORK 55181/2

from any of the following contractors

hire a...

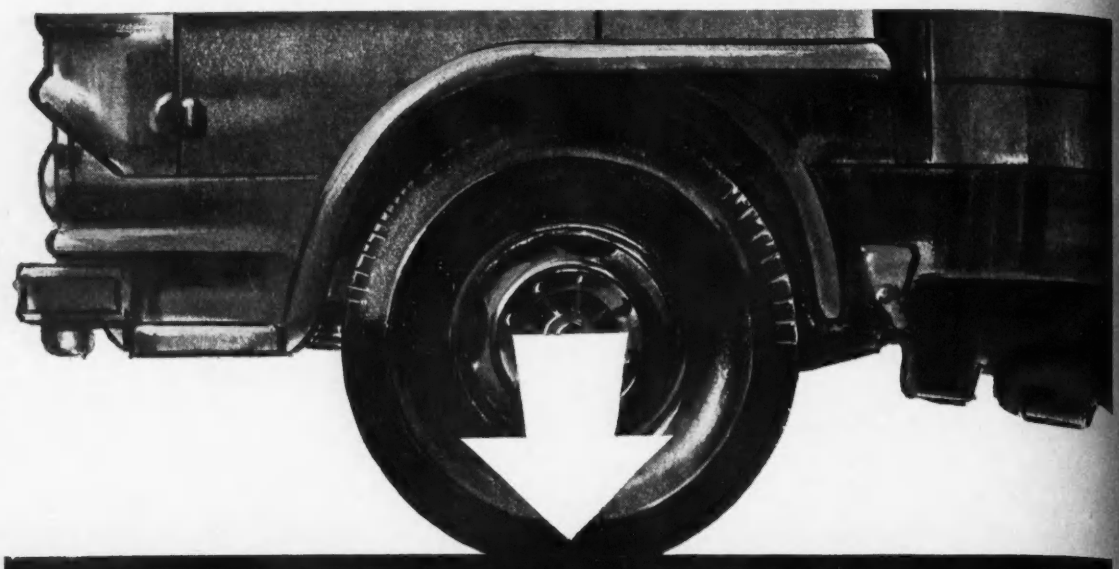


and make sure of the super L·I·G service

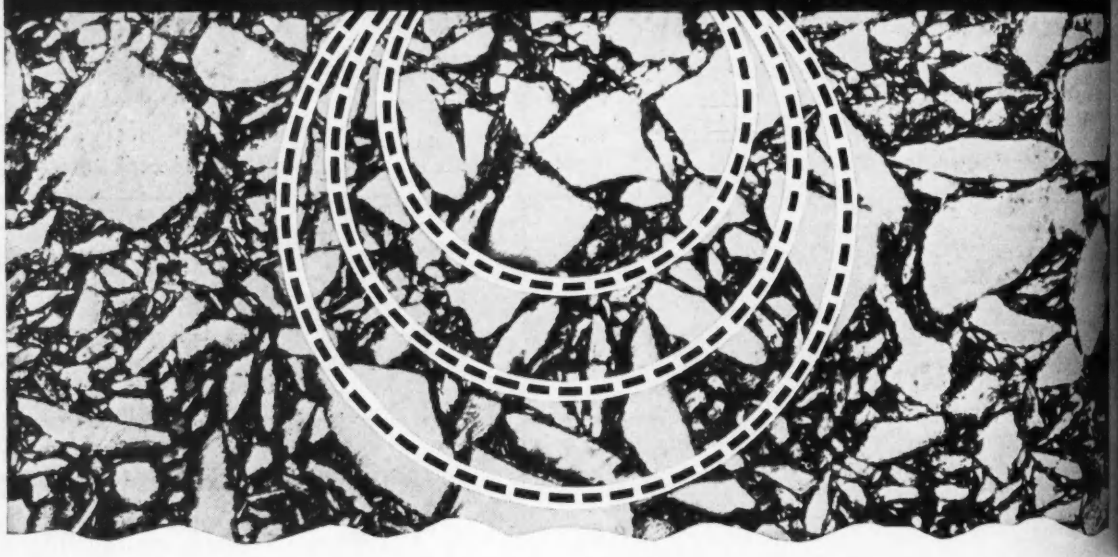
W. A. STAINSBY LTD., Station Road, SOUTH BANK, MIDDLESBROUGH. Tel.: South Bank 58609.	GEORGE FORDY & SON LTD., Boathouse Lane, STOCKTON-ON-TEES. Tel.: Stockton 65041/2.	GEO. RICHARDSON & SONS DEWSBURY LTD., Lidgate Works, Batley Carr, DEWSBURY. Tel.: Dewsbury 509.	JONATHAN POTTS LTD., King Edward Street, GRIMSBY. Tel.: Grimsby 55249/50.
D. ELGIE, Shepherd's Hill, SWAINBY. Northallerton, Yorks. Tel.: Hutton Rudby 494.	R. L. WADE & SON LTD., ST. HELEN'S AUCKLAND, BISHOP AUCKLAND, Co. Durham. Tel.: West Auckland 291.	SANDRINGHAM CONTRACTORS LTD., 1 Low Road, BALBY, DONCASTER. Tel.: Doncaster 69528.	ALF. KITCHING, Ealand, CROWLE, Nr. Scunthorpe, Lincs. Tel.: Crowle 366.
	SITE SUPPLY & EXCAVATION LTD., OSBALDWICK, YORK. Tel.: York 59402 & 25827.	HOBSON BROS., WHITLEY BRIDGE, Nr. Goole. Tel.: Whitley Bridge 240 & 396.	LINTZGARTH SLAG CO. LTD., "Parkend Grange," ORMESBY, MIDDLESBROUGH. Tel.: Park End 221-222.
		LEARLECK ENGINEERING CO. LTD., 5 Esk View, EGTON, WHITBY, Yorks. Tel.: Grosmont 278.	H. MARSON, 40 Redcar Lane, REDCAR. Tel.: Redcar 4803 & 5019.

IN CONJUNCTION WITH

Hergarth OF YORK LTD Telephone: YORK 55181 2



BITUMEN-BOUND BASES = INCREASED LOAD-BEARING CAPACITY



Flexible roads are now being laid incorporating asphalt and bitumen macadam in a new type of base construction. Mexphalte bitumen is being employed *to bind the base aggregate* and to produce a tougher road with many improved features.

Asphalt and bitumen macadam bases are superior to conventional bases in distributing traffic stresses over the subgrade and can therefore be laid thinner.

Further advantages are:—The bitumen-bound base assists an uninterrupted construction schedule as it provides a weatherproof roadway for contractors' vehicles as soon as it is laid. □ The risk of frost damage is reduced to a minimum. □ The greatly improved weather-resistance of the base safeguards the structure from the effects of moisture at all times of year. □ The bitumen-bound base is not disintegrated by subsidence, and restoration of surface levels is facilitated. □ The increased accuracy of the machine-laid base makes for greatly improved riding qualities in the final surfacing.

SHELL BP

SHELL-MEX AND B.P. LTD.
Registered Users of Trade Marks.
Distributors in the United Kingdom for the Shell and BP Groups.

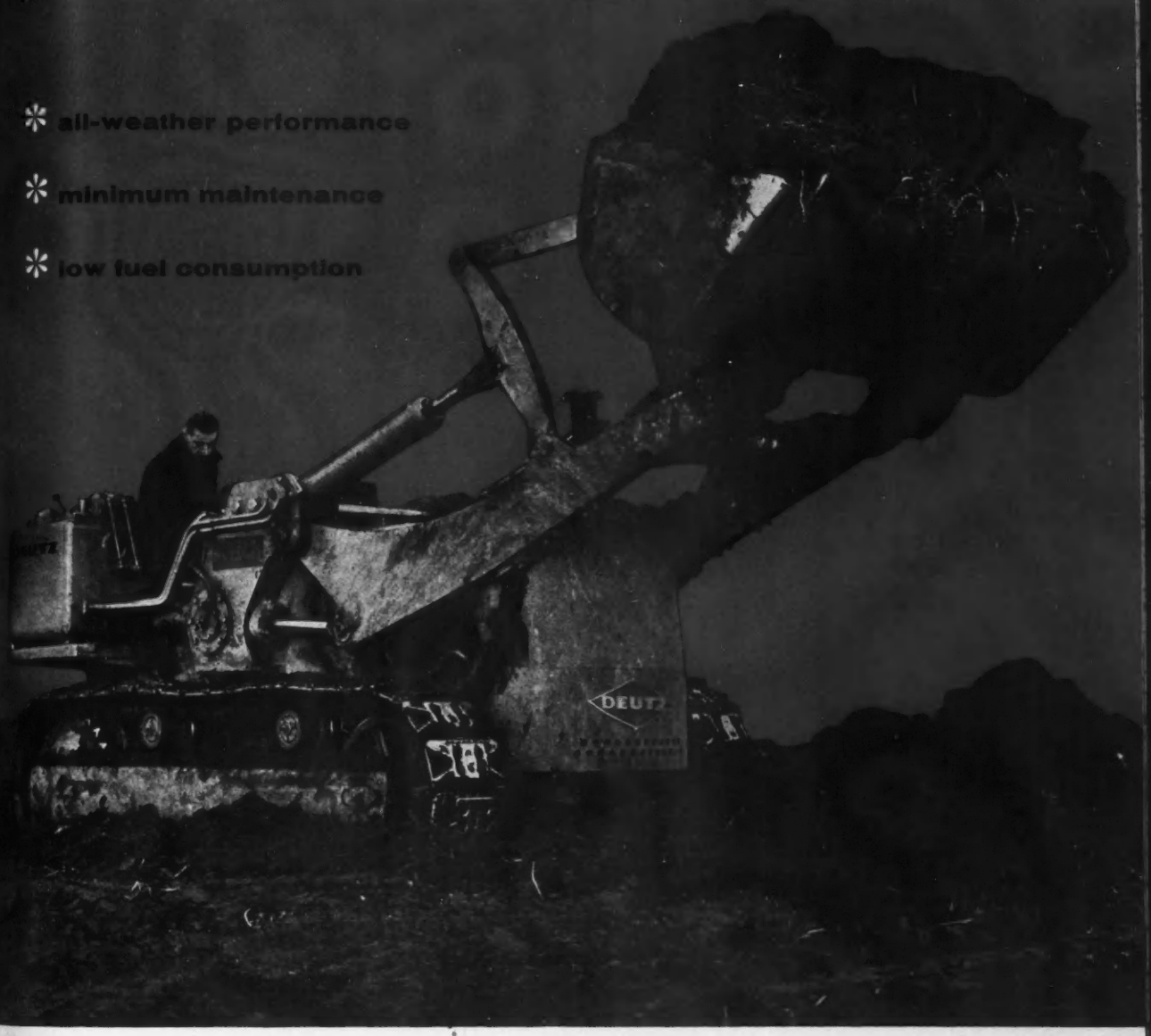
MEXPHALTE & SHELPHALT

THERE ARE NO BETTER BITUMENS

DEUTZ

FOR ECONOMY

* all-weather performance
* minimum maintenance
* low fuel consumption



Deutz crawlers keep going in conditions which bring others to a stop. Basic rightness of design keeps drawbar pull always flexible, always there. Deutz crawlers are manufactured in two sizes, the DK75 (65 h.p.) and the DK100 (100 h.p.) and are powered by the Deutz air-cooled diesel engine, most highly proved air-cooled diesel in the world today.

A reminder of what *air-cooled* means. Even at —68°F or at +140°F a Deutz diesel will start easily, warm up quickly, deliver steady, economical, horsepower. It means there's nothing to freeze, nothing to burst, nothing to boil. Less cold running, no corrosion, less maintenance. Over half a million air-cooled Deutz diesels are now in use throughout the world.

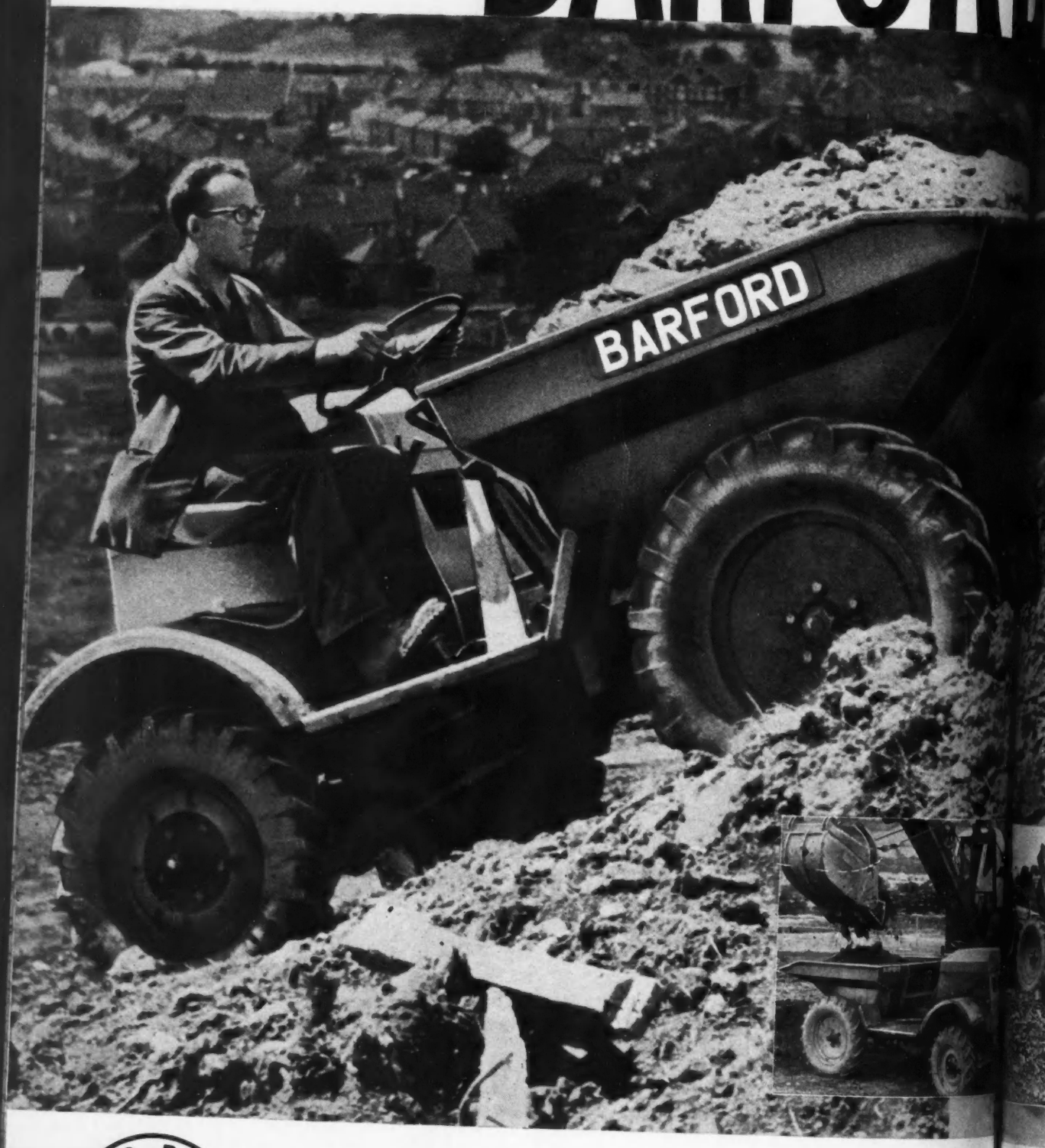
All this spells economy to the contractor. If you are interested in speeding up work, beating difficult—particularly wet—conditions, saving on fuel, maintenance and replacement costs, then take a good look at a Deutz. Demonstrations, gladly, through sole agents.

KLÖCKNER-HUMBOLDT-DEUTZ AG.

BRITISH **DEUTZ** LIMITED

1-6 Essex Street, The Strand,
London, W.C.2. *Telephone:* COVent Garden 1464

Full load anywhere BARFORD



AVELING-BARFORD GROUP

it's better by far to bu

L-WHEEL DRIVE

150 DUMPER

Positively driven through all four wheels, the Barford '150' Dumper will take its big load anywhere. Deep sticky mud . . . steep slippery grades . . . rough haulways, present no real challenge to its load-delivering ability. Four-wheel drive puts all weight on live driving wheels. With no dead weight to consume power, full engine output is put to useful work so you can move more at less cost in less time.

For favourable ground conditions drive to the rear steering wheels can be quickly disengaged.









For full specification of the Barford four-wheel drive '150' Dumper, please apply for our list No. 1846

BARFORD

BARFORDS OF BELTON LIMITED · GRANTHAM · LINCS

3-way economy *

the

MONO-RAIL

TRANSPORTER

...for saving

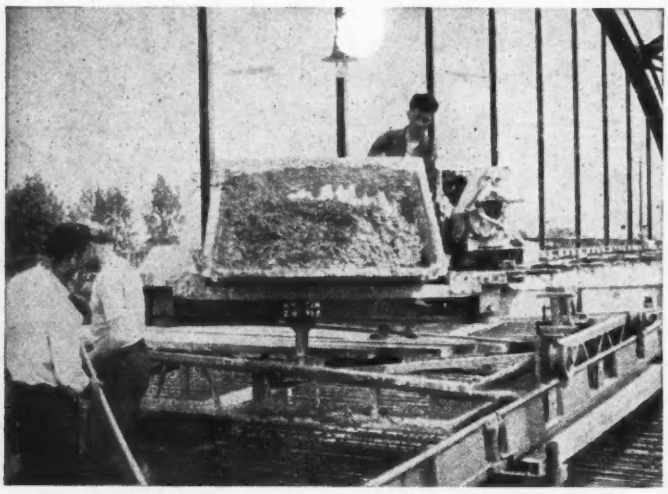
* **TIME**

* **MONEY**

* **LABOUR**

...in materials handling.





Just look at these features

The

MONO-RAIL TRANSPORTER

NEEDS NO DRIVER OR OPERATOR

HAS LOW OPERATING COSTS

IS EASILY AND RAPIDLY SET UP OR REPOSITIONED

IS EASILY DISCHARGED

IS IDEAL FOR BAD GROUND

DOESN'T CHURN UP MUDDY GROUND

REQUIRES NO FOUNDATIONS

CLIMBS UP TO 1:9 GRADIENTS FULLY LOADED

TRAVELS 100 YARDS PER MINUTE

IS SUITABLE FOR ALL CONCRETE PLACING

.... and, what's more, with the MONO-RAIL BRIDGE in the system, an increased concrete output can be placed almost anywhere without moving rails or interfering with reinforcements.

ROAD MACHINES (DRAYTON) LTD.

WEST DRAYTON, MIDDLESEX

Telephone: WEST DRAYTON 3721/6

Telegrams: " ROADMACH " WEST DRAYTON

For further details about Mono-Rail Transporters, fill in this coupon and dispatch it to :

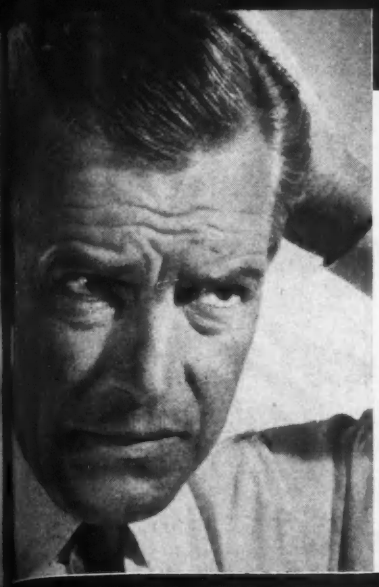
ROAD MACHINES (DRAYTON) LTD., WEST DRAYTON, MIDDLESEX

Telephone: WEST DRAYTON 3721/6

Name .....

Address .....

..... County ..... C/MA 7



Behind schedule? . . .

Get a SMITH and go ahead!



Catalogues and specifications on request

THOMAS SMITH & SONS (RODLEY) LTD

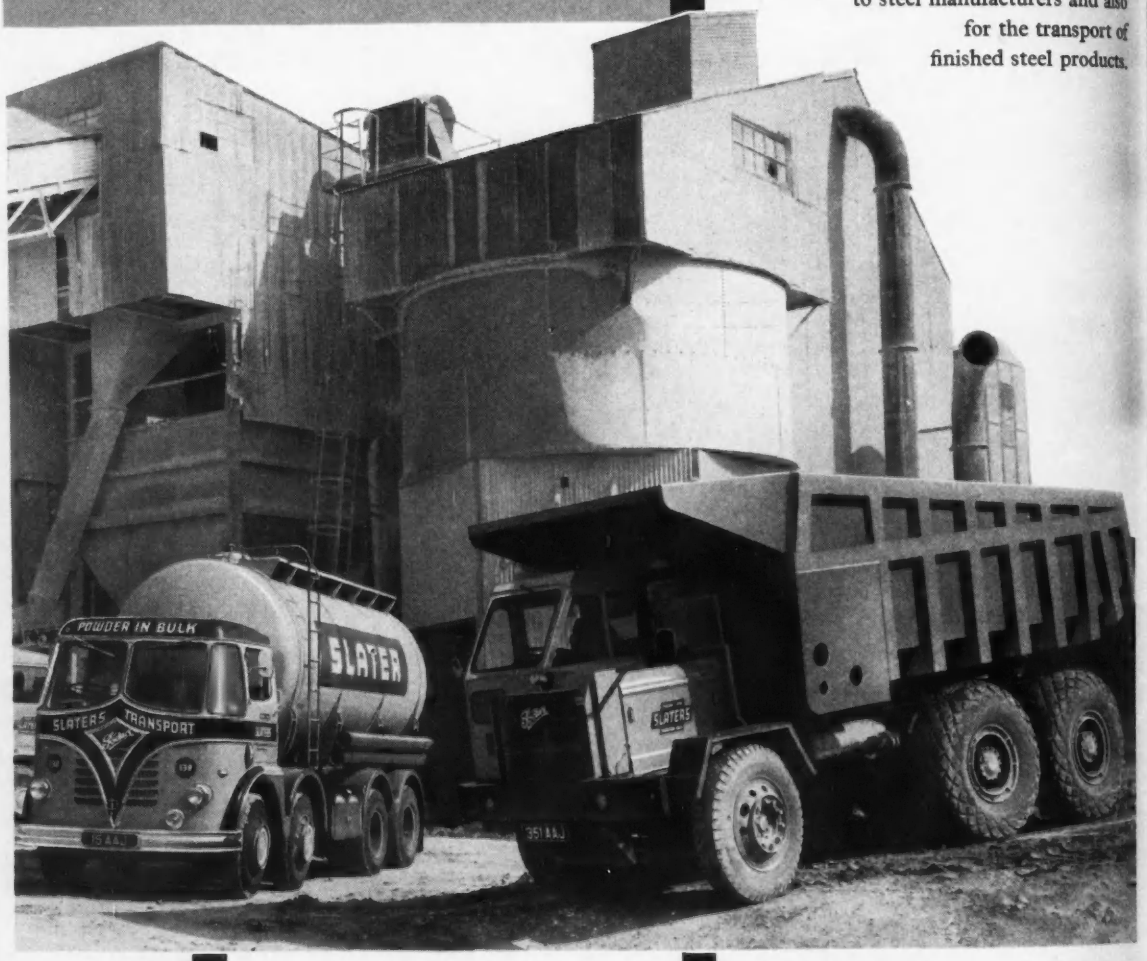
Crane & Excavator Works · **RODLEY · LEEDS · ENGLAND**

● End breakdowns and delays through worn-out or inefficient equipment. Let a Smith Excavator get its teeth into the job! *Then* you'll know what peak operational efficiency really means. *Then* you'll have a machine to be proud of and serve you well for years!

From limestone to steel Via . . .

Foden

For hard work
in the hilly North,
Foden is a first choice.
Slaters of Thornton-le-Dale, Yorkshire,
have a large fleet of Fodens
of many types for delivering limestone
to steel manufacturers and also
for the transport of
finished steel products.

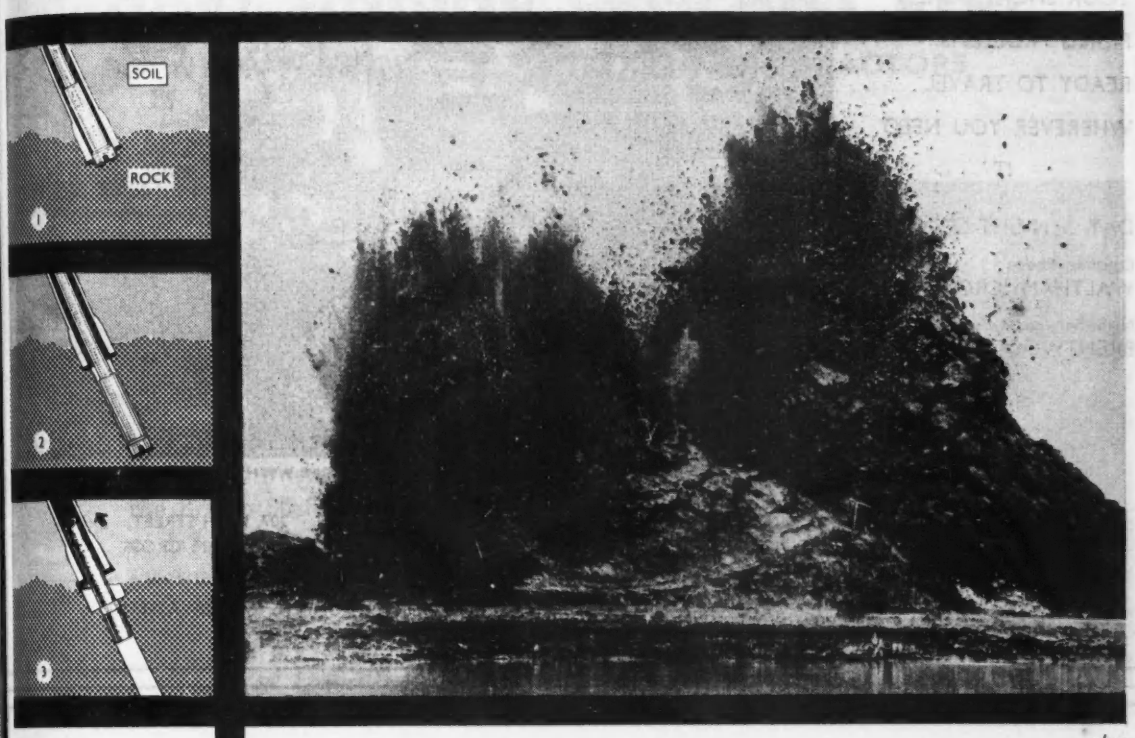


The Dump Truck illustrated transports limestone from the firm's own quarry to the crusher shown in the background. After crushing to fine powder it is loaded into the air discharge tanker shown in the picture and delivered to several steelworks in the north-east of England.

Foden Dump Trucks for payloads of 9 to 20 tons with a wide choice of body types.

FODENS LIMITED
Elworth Works, Sandbach, Cheshire
Telephone Sandbach 644 (12 lines)
London Sales Office: 139 Park Lane, W.1
Telephone Grosvenor 5932

THE OVERBURDEN DRILLING METHOD



ch10



New technique widens scope for sub-soil and under-water drilling

Here's a completely new technique for drilling through all kinds of overburden–dry or under water. You'll find it cheaper and quicker than conventional methods used for grouting, sub-soil exploration, mineral prospecting and similar operations. Sampling can be carried out at any stage of the drilling.

Drilling and blasting bed rock without removing the soil cap

The OD-Method involves the use of specially developed Sandvik Coromant drill-pipes with standard inner extension steels (see left). These are driven by an Atlas Copco rock drill with powerful separate rotation mechanism. The principle of the method is shown in diagram form above:
1. Pipe and steel are drilled together through earth strata and collared in the bedrock.
2. Pipe is uncoupled from drilling action and the hole drilled to full depth, by inner steels alone.
3. Inner steel is then replaced by plastic tube and drill-pipe removed leaving an open connection to the surface. The OD-Method has been developed by Skånska Cementgjuteriet, Scandinavia's biggest contractors, in co-operation with Atlas Copco and Sandvik Steel Works.

Write for the free 20-page booklet describing the OD-Method. Or call your nearest Atlas Copco branch office for more details.

Atlas Copco puts compressed air to work for the world

ATLAS COPCO (GREAT BRITAIN) LIMITED
Maylands Avenue, Hemel Hempstead, Herts. Telephone: Boxmoor 6040
Sales and Service Depots at: LONDON · BRISTOL · CARDIFF · LICHFIELD · LEEDS · MANCHESTER
NEWCASTLE · GLASGOW · BELFAST · DUBLIN

AVAILABLE FOR HIRE

LET US SOLVE
YOUR SHORT BORE
PILING PROBLEMS.
READY TO TRAVEL
WHEREVER YOU NEED
IT

DAY & NIGHT SERVICE

Daytime 'Phone:
WALTHAM CROSS 26211

Night Service 'Phone:
BRENTWOOD 5474



CHESHIRE HIGHWAY EARTH BORING MACHINE AVAILABLE WITH 9", 12", 14", 16" or 24" AUGERS (MAXIMUM DEPTH 20')

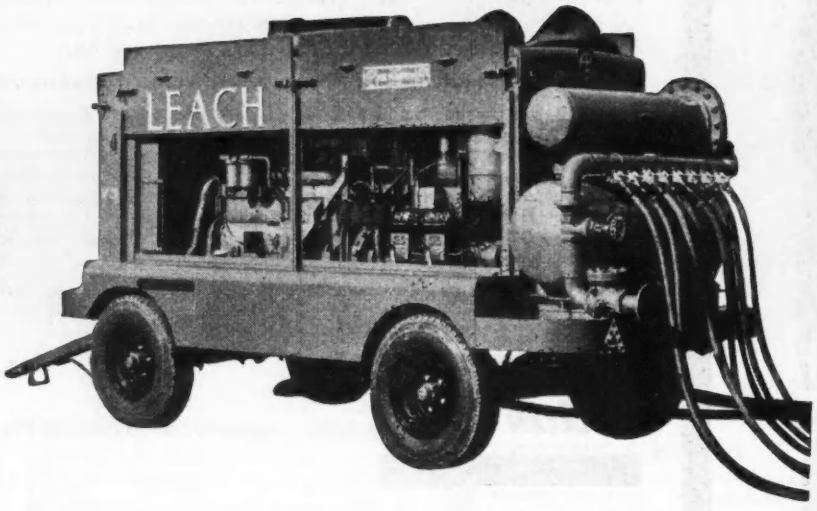
ACWORTH (PLANT HIRE) LTD.

207, HIGH STREET,
WALTHAM CROSS,
HERTS.

ALSO AVAILABLE: DROTTS, DINKUMS, MOBILE COMPRESSORS, 3 YD. DUMPERS & EXCAVATORS

HUBERT C. LEACH LTD.

"OFF THE SHELF" SERVICE FOR PNEUMATIC TOOLS AND EQUIPMENT



FOR SALE OR HIRE

AIR PUMPS LTD. COMPRESSORS FROM 70 TO 600 C.F.M.

THOR PNEUMATIC TOOLS, HOSE AND ACCESSORIES

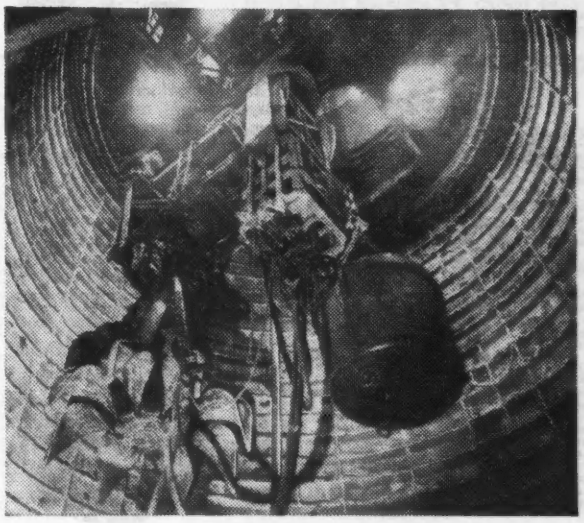
WRITE FOR DETAILS: HUBERT C. LEACH LTD., HIGH STREET, CHESHUNT, HERTS. *Tel.:* WALTHAM CROSS 25161 *(6 LINES)*

THYSSEN

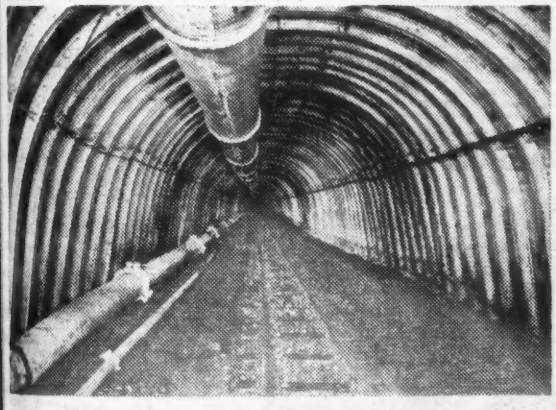
SHAFT SINKING COMPANY LTD.

MINING AND CIVIL ENGINEERING CONTRACTORS

MINING CONSULTING ENGINEERS



View from the Shaft Bottom, showing the underside of the Sinking Stage, 105 cubic feet capacity bowk and lashing gear, including grab and driver's cabin, etc., in use at Kellingley Colliery, Yorkshire, where we established the British Shaft Sinking Record of 339 feet of completed 24 feet internal diameter concrete lined shaft in January, 1961.



View of the Roadway at Blaengwrach (New Drift), South Wales where, in cross measure coal strata, we established the British Tunnelling Record of 108 yards advance in one week during February, 1961.

(Photographs by courtesy of the National Coal Board)

SHAFT SINKING, TUNNELLING, CEMENTATION, SPECIALISTS IN ALL TYPES OF UNDERGROUND DEVELOPMENT WORK

ALL TYPES OF CIVIL ENGINEERING WORK

HEAD OFFICE:

LLANELLY, CARMARTHENSHIRE

Telephone: Llanelly 3594/Pontyates 357/8/9

Registered Office: 3 Grosvenor Gardens, London, S.W.1



A complete diving service . . ready day-and-night!

A jammed lock gate—a big underwater cutting job—a new outfall—you'll need a first-class diving team on the spot *at once*. Send for Universal Divers. Universal have had experience in every field of submarine work under all conditions. Universal specialise in underwater surveys, frequently using "Frogman" equipment for speed and cheap air transport to overseas contracts.



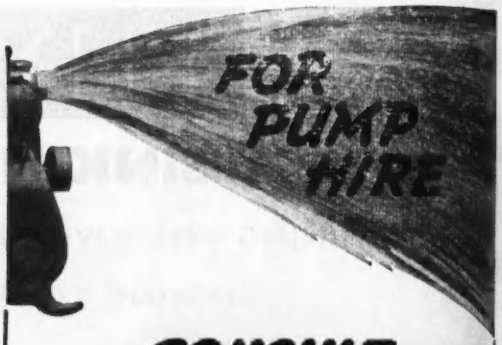


The Universal service operates day-and-night, too! At each of our offices, divers are available all round the clock. Next time you need a diver in a hurry . . . send for Universal!

Underwater Surveyors. Contractors & Engineers to Consulting & Civil Engineers, and County and Local Authorities. On Admiralty Lists.



UNIVERSAL DIVERS LTD.
40 North John Street,
Liverpool 2
Telephone: MARitime 2270
Also at Newcastle



CONSULT PUMPIRE LIMITED

LONDON
112 Jermyn Street, S.W.1. *Phone : TRA 2665*
Finchley Road, Hampstead, N.W.3. *Telephone : TRA 2663*

LEICESTER
Tudor Works, Bradgate St.
Telephone : Leicester 21512

MANCHESTER 3
Cheviot St., Strangeways
Telephone : BLA 6318

SURREY
Byfleet Works, Byfleet. *Telephone : Byfleet 46401*

INTRODUCING THE **STA-DRI** "Massey-Ferguson 702" "710" MODEL



Step Direct from Tractor to Digger Cab.

Built to last for years

For further particulars of the above and Sta-Dri cabs for all leading makes of tractors, with or without loaders, **CONSULT YOUR LOCAL DEALER**

MANUFACTURERS:
Bristol Metal Components Limited,
Dept. "C", Whitefield Road, Bristol 5
Telegrams: Sta-Dri, Bristol.
Telephone: Bristol 651204 (3 lines)

To: Bristol Metal Components Ltd., Whitefield Road, Bristol 5
Please send me Brochures on Sta-Dri Cabs for:
Type of Tractor .....
Name .....
Address .....
.....
Nature of Business .....

CONTRACTORS' GUIDE TO AGGREGATES

BEDFORDSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

FOXHILL SAND AGGREGATES, LTD., Northampton Road Quarries, Rushden (2354/5). (See Northants.)

GRAVEL PRODUCTS (HUNTS.), LTD., Little Paxton, St. Neots, Hunts. (Tel.: St. Neots 308.) Pits at Little Paxton, St. Neots, Hunts.; and Blunham, Beds.

HARTIGAN, G. F. X., LTD. (See Buckinghamshire.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) (See Huntingdonshire for details.)

WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)

WINFIELD, HENRY, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208/9.) Pits at: Leighton Buzzard, Bedford. Building sands.

BERKSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BULL BROS., S. and L., LTD., 126A High Street, Winchester. (Tel.: 2264.) (See Hampshire.)

CLIFF, HARRY A., LTD., Buckhurst Hill, Cheapside, Ascot, Berks. (Tel.: Ascot 1026/7.) Sand, all grades of washed aggregates, hardcore, clinker, ashes and hoggin.

CURTIS, J. AND SONS, LTD., Botley Works, Oxford. (Tel.: Oxford 41081/2/3.) Sand and all grades of washed aggregates. Pits at Radley, near Abingdon. (Tel.: Abingdon 441.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

EDMONDSON, S. (EWELME), LTD., Ewelme, Oxon. (Tel.: Ewelme 20 and 37.) London Office (Tel.: Uxbridge 36511/2/3). All grades washed aggregates, Path hoggin, broken stone, building sand.

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.

HALL AND CO., LTD., Cardiff Road, Reading. (Tel.: 50458.) Pits at Theale. (Tel.: Theale 373.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

JAMES AND CO., LTD., 2C Buckingham Avenue, Slough. Sand aggregates, hardcore, ashes, bulldozing and bulk excavation. (Tel.: Slough 20361/2/3.)

LONDON BALLAST CO., LTD. (Tel.: Paddington 5064), 155A Porchester Terrace North, Paddington, W.2.

MIDLAND AGGREGATES, LTD., Eversley, near Basingstoke, Hants. (Tel.: Eversley 2250.) Washed sand and pit sand and all aggregates.

PALMER OF BASINGSTOKE, LTD., 37 Kempshott Lane, Basingstoke, Hants. (Tel.: 85.) Concrete aggregates, building sand, path gravel, hoggin, etc.

BRECKNOCKSHIRE

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

BUCKINGHAMSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BICESTER STONE CO., LTD., Stratton Audley, Bicester, Oxon. (Tel.: Stratton Audley 391/2.) Manufacturers and suppliers of all grades limestone, tarmacadam, dry, pitching stone, hardcore, etc.

CLIFF, HARRY A., LTD., Buckhurst Hill, Cheapside, Ascot, Berks. (Tel.: Ascot 1026/7.) (See Berkshire.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

DENHAM WATER, W. W., (WILLESDEN), LTD., Rush Green, Denham, Bucks. (Tel.: Denham 2241/2/3.)

EDMONDSON, S. (EWELME), LTD., Ewelme, Oxon. (Tel.: Ewelme 20 and 37.) London Office (Tel.: Uxbridge 36511/2/3). All grades washed aggregates, Path hoggin, broken stone, building sand.

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.

HALL AND CO., LTD., Brentford, Middlesex. (Tel.: Isleworth 4455), and Coronation Road, High Wycombe (Tel. 5121), and at Gerrards Cross. Pits at: Wraysbury (Middx.), and Iver (Bucks.).

HARTIGAN, G. F. X., LTD., High Street, Newport Pagnell. (Tel.: 126.) Graded and single-sized gravel aggregates to B.S.S. Pits at Newport Pagnell and Broughton, adjoining M.1 flyover.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

JAMES AND CO., LTD., 2C Buckingham Avenue, Slough. Sand aggregates, hardcore, ashes, bulldozing and bulk excavation. (Tel.: Slough 20361/2/3.)

LONDON BALLAST CO., LTD. (Tel.: Paddington 5064), 155A Porchester Terrace North, Paddington, W.2.

MARLOW SAND AND GRAVEL CO., LTD., Westhorpe Pit, Little Marlow, Bucks. (Tel.: Marlow 379.)

ROBERT MACEY, LTD., Gordon Road, High Wycombe. (Tel.: High Wycombe 2591/2.)

CAMBRIDGESHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

DICKERSON, M. (CONTRACTORS), LTD., Gloucester Street, Cambridge. (Tel.: Cambridge 56973/4.) All grades washed sand and gravel, reject stone, hoggin, clinker, crushed granite, crushed and graded concrete, hardcore, brick rubble, ready-mixed concrete (all grades).

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

MACLAREN BROS. (KENNETT), LTD., gravel, tarred and bituminous, gravel asphalt, washed sand and gravel, all to B.S. specifications. Delivered to any site. Station Rd., Kennett, Cambs. (Tel.: Kentford 333/4.)

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) (See Huntingdonshire for details.)

WEBB, G. CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: Cambridge 59966, 53969, 50353 (night).) Supplier, at keenest rates, of "Finest Quality Only" all grades washed sand and gravel, reject stone, hoggin, clinker, ashes, brick rubble, pitching, hardcore and granite chippings. All to B.S. Specifications. Delivered to any site in East Anglia.

CARDIGANSHIRE

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

CARMARTHENSHIRE

JOHN WILLIAMS AND CO. (CRWBIN QUARRIES), LTD., ROCK PRODUCTS (KIDWELLY), LTD., both at 4 Queen Street, Carmarthen. (Tel.: Carmarthen 7781, 7637, 7031.) All grades aggregate. Tarmacadam. Lime. Road surfacing by specialists. Barber-Greene and rollers available.

CHESHIRE

BUCKTON QUARRY, broken stone, all grades. (Tel.: Mossley 123.) Or write Main Road, Oldham.

CASTLETON SAND AND GRAVEL QUARRIES, LTD., Pennant End Quarry, Whaley Bridge. (Tel.: Whaley Bridge 193.) Washed sand and gravel.

CAWOOD, WHARTON AND CO., LTD., Plstyll Gwyn Quarry, Llanarmon, near Mold. (Tel.: Llanarmon-yn-lal 27.) Crushed limestone and tarred macadam, all grades.

CHESHIRE AND NORTH WALES TARRED MACADAM CO., LTD., Llanarmon, near Mold. (Tel.: Llanarmon-yn-lal 43.) Hard, broken limestone, dry and coated, to B.S.S. Inquiries to registered office—Market Chambers, Tower Square, Tunstall, Stoke-on-Trent. (Tel.: Stoke-on-Trent 88094.)

CROXDEN GRAVEL, LTD., Cheadle, Stoke-on-Trent, Staffs. (Tel.: Tean 393.) Manchester Office: Blackfriars 3766/7. Plant capacity, 2,000 tons per day.

HILTON GRAVEL, LTD., Rice Street, Liverpool Road, Manchester, 3. (Tel.: Deansgate 5455 and 5456.) Quarries at Cheadle, Staffs. (Tel.: Tean 241.) And at Longton, Stoke-on-Trent. (Tel.: Longton 32196.)

HULLAND GRAVEL CO., LTD., Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., 7 Picton Road, Liverpool, 15. (Tel.: Sefton Park 7261.) All sizes and gradings of crushed granite aggregate from our Collingwood Dock (Liverpool) Depot. Any quantity per day; immediate delivery ex stock.

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffordshire for details.)

TRENTHAM GRAVEL CO., LTD., Lordsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity: 2,000 tons per day.

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 366.) (For details, see Staffs.)

CORNWALL

PENTEWAN DOCK AND CONCRETE CO., LTD., Pentewan Works, near St. Austell. (Tel.: Mevagissey 3335/6.) Gwithian Works, near Hayle. Pure silica gravel and grit, concreting, building, plastering and asphalting sands, elvan and granite aggregates, all sizes.

CUMBERLAND

BROOMBYS, LTD., Sandside, Milnthorpe (Tel.: 3251/2), Westmorland. (See Westmorland.)

ESK MANUFACTURING CO., LTD., Calsil Brickworks, Brisco, Cumberland. (Tel.: Carlisle 2-4941.) Sand lime bricks (common and coloured facings). Ex Brisco. Concreting aggregates ex Longtown Works (Tel.: 365).

DENBIGHSHIRE

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

DERBYSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes; coated limestone to B.S. 802 and 1621 and wet-mix; large output, reliable deliveries.

HILTON GRAVEL, LTD., Hilton, Derby. (Tel.: Etwall 422.) Also at Mercaston. (Tel.: Brailsford 316.) And at Willington. (Tel.: Repton 3215.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

HULLAND GRAVEL CO., LTD., Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

DERBYSHIRE

SALISBURY AND WOOD, LTD., Matlock. (Tel.: 272/273.) Limestone and granite, dry or coated gravel and sand, kerbs, slabs, blocks, posts, reconstructed and natural stone; lime and ground limestone, lightweight aggregates, ashes, red shale.

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 366.) (For details, see Staffs.)

DORSET

BULL BROS., S. and L., LTD., 126A High Street, Winchester. (Tel.: 2264.) (See Hampshire.)

DANGERFIELD, F. J. AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

DORSET LIMESTONES, LTD., Bumpers Lane, Easton, Portland, Dorset. (Tel.: Portland 2207/8.) Tarred and bituminous macadam, foundation materials, limestone for all purposes and to all gradings. Portland stone aggregates and Portland capstone aggregates for reconstructed stone. By road and sea.

HALL AND CO., LTD., 8 Commercial Road, Parkstone. (Tel.: 5379.)

MOREYS (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggin, path gravel.

ESSEX

ALRESFORD SAND AND BALLAST CO., LTD., Alresford Creek, near Colchester, Essex. (Tel.: Wivenhoe 341/494.) Pits at Alresford Creek, Brightlingsea, Boxford, Bures and Holland. All grades of washed shingle, concreting sand and building sand. Road and water transport.

BAKER, F. AND E., LTD., 73 High Road, Rayleigh, Essex. (Tel.: Rayleigh 1031/2.) Pits at Great Totham, Heybridge and West Tilbury. All grades of washed material supplied and delivered; also hardcore ashes and bricks.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BUCBRICKS COMPANY, LTD., Sand and Ballast Pits, Martells, Ardleigh, Colchester. (Tel.: Ardleigh 310.) All grades of washed aggregates, sand, building sand, asphalt, grit. Sterilised dry sand accurately graded to buyers' requirements.

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

FERRIS PITS, LTD., The Limes Garage, Fencepiece Road, Barkingside, Essex. (Tel.: Hainault 5271/2-3001/2.) Pits at Orsett, near Stanford-le-Hope, and Upminster. All grades of washed aggregates, plastering and building sands supplied and delivered, also hardcore.

HALL AND CO., LTD., Manor Road, Romford. (Tel.: Romford 42321.) Pits at Upminster, Boreham and Linford, near Grays. Gravel aggregates, concreting, plastering and building sand.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

HUNNABELL, F. A., AND SON, LTD., Rayne Road, Braintree, Essex. (Tel.: Braintree 151 and 1351.) Graded washed stone, ¼in. to rejects; washed concreting sand and washed soft building sand. Classified sand for asphalt. Ready mixed concrete to all grades. Pits at Braintree, Bocking, Beasley End, Hedingham and Alphamstone.

KENRICK, W., LTD., 92 Waterloo Road, Romford, Essex. (Tel.: 42481/2.) Supply and deliver all grades of sands, ballast and shingle, asphalt grits, granite aggregate. Rubbish clearance. Tip available at Upminster.

LEIGH BUILDING SUPPLY CO., LTD., Head Office: 956 London Road, Leigh-on-Sea, Essex. (Tel.: 78264—5 lines.) All grades washed materials, building sand, hardcore, ashes, bricks, granite.

PETERS AND BARHAM, LTD., 309 South Street, Romford. (Tel.: Romford 44141—7 lines.) Washed and crushed gravel, all sizes. Sand pits at Asheldham, Chignall St. James, Dagenham, Great Waltham, North Ockendon, Roxwell, West Thurrock, Romford and Thorpe-le-Soken.

PINCH, L. A. AND A., LTD., Upper Rainham Road, Elm Park, Hornchurch, Essex. (Tel.: Hornchurch 48912/3/4.) Haulage, all aggregates and excavation.

READ, P. T., LTD., Fairlop Airfield, Forest Road, Ilford. (Tel.: Hainault 6111/2/3.) High-grade sands, ballast and shingles supplied and delivered; also ready-mixed concrete.

ST. ALBANS SAND AND GRAVEL CO., LTD., London Colney, St. Albans, Herts. (Tel.: Bowmansgreen 2271.) Pits at Meadgate Road, Nazeing; Station Road, Waltham Abbey.

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4 and Halstead 2323.) Pits at St. Ives and Gosfield, near Halstead.

STANWAY CONTRACTS, LTD., Upper Edwards Hall, Eastwood, Southend-on-Sea. (Tel.: Eastwood 55161.) Sand and gravel pits at Rochford and Woodham Walter. Graded aggregates supplied or delivered.

WIVENHOE SAND, STONE AND GRAVEL CO., LTD., Wivenhoe, near Colchester, Essex. (Tel.: Wivenhoe 231.) High quality washed aggregates of all grades.

GLOUCESTERSHIRE

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

COKE, T. F., (CHELTENHAM), LTD., 267 Gloucester Road, Cheltenham. (Tel.: Cheltenham 4717/4874.) Sand, graded gravel aggregates, hardcore, limestone, chippings, tarred and bituminous limestone, concrete blocks, fence posts, etc.

CROMHALL QUARRIES, LTD., Cromhall, Wotton-under-Edge, Glos. (Tel.: Falfield 346/7.) Concrete aggregates, pre-graded in large quantities. Tarmacadam, tarpaving, bituminous macadam and cold asphalt to B.S.S. for hand or machine laying.

GRIFFITHS, A., AND SONS, Churchdown, Gloucester. (Tel.: Churchdown 3135 and 2216.) Pit, quarry and dredger owners. All grades and types aggregate materials.

Rates for insertion in this GUIDE will be forwarded on application

CONTRACTORS' GUIDE TO AGGREGATES

GLOUCESTERSHIRE

HALL AND CO., LTD., Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 63001.) Gravel aggregates, concreting, plastering and building sand.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. Concrete aggregates, road-stones, and Dolomitic media.

TAYMAC, LTD., Wootton Bassett, near Swindon, Wilts. (Tel.: Wootton Bassett 391—5 lines.) Cotswold stone, hardcore, washed and graded aggregate, building sand.

WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel.: Coleford 3158/9.) Tarred and bituminous limestone macadams, asphalt, concrete aggregates, dolomitic media, engineering, facing and common bricks for all purposes. Delivery road or rail.

HAMPSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BULL BROS., S. AND L., LTD., 126A High Street, Winchester. (Tel.: 2264.) Concreting aggregates (reconstituted, pit-mixed, weighbatched to meet any specification); also ballast, hoggin, path gravel and sand from own pits at Fawley, Lockerley, Ringwood, Romsey, Sway and Totton.

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

HALL AND CO., LTD., Baltic Wharf, Marine Parade, Southampton. (Tel.: Southampton 21234), and at Portsmouth. Pits at Ringwood, Highbridge and Fawley. Gravel aggregate, concreting, plastering and building sand.

HASKINS, G., AND SONS, Queen Street, Emsworth. For washed sand and graded aggregates, path and road gravels, hogging, clinker, ashes. (Tel.: Emsworth 2271.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

MIDLAND AGGREGATES, LTD., Eversley, near Basingstoke, Hants. (Tel.: Eversley 2250.) Washed and pit sand and all aggregates.

MOREYS (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggin, path gravel.

NEW MILTON SAND AND BALLAST CO., Lymington Road, New Milton, Hants. (Tel.: 37 and 566.) Guaranteed uncrushed, washed, screened and graded concrete aggregates. All sizes. Washed sharp and fine sands.

PRIVETT, W. G., AND SONS, LTD., Drayton Lane, Portsmouth. (Tel.: Cosham 70059.) Concrete aggregates, building sand, hoggin, ashes, washed and graded filter media, etc.

RALPH OF BASINGSTOKE, LTD., 37 Kempshott Lane, Basingstoke, Hants. (Tel. 85.) Concrete aggregates, building sand, path gravel, hoggin, etc.

TWICKENHAM GRAVEL CO., LTD., Ship Lane, Farnborough (Tel. 1126); Sandhurst Road, Yateley (Tel. 2230).

WINTON, WM. R., LTD., Send, Woking, Surrey. (Tel.: Ripley 2454/5.) Concrete aggregates. Ready mixed concrete plant at Newnham, Basingstoke.

HEREFORDSHIRE

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) Suppliers of all grades of crushed concrete aggregates, road metalling, pitching stone, hard-core and coated macadam.

HOVERINGHAM GRAVELS, LTD., Hoveringham Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) All grades of tarred and bituminous macadam, road-stone, chippings and concrete aggregates, etc.

OLD RADNOR TRADING CO., LTD. Kingston. (Tel. 421.) Granite and limestone aggregates, coated macadam, concrete products.

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. Concrete aggregates, road-stones and Dolomitic media.

WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Coleford, Glos. (Tel. 3158/9.) (See Gloucestershire.)

HERTFORDSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

EASTWOODS SALES, LTD., Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Broxbourne pit (Tel.: Hoddesdon 2456). Producers and distributors of all grades of washed aggregates.

GABRIEL, C., LTD., Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Hertford and Enfield.

HALL AND CO., LTD., Railway Yard, Orchard Road, Stevenage (Tel. 775), and at Hatfield. Gravel aggregates, concreting, plastering and building sand.

HARTIGAN, G. F. X., LTD. (See Buckinghamshire.)

ST. ALBANS SAND AND GRAVEL CO., LTD., London Colney, St. Albans, Herts. (Tel.: Bowmans-green 2271.) Pits at Smallford Lane, Smallford, and Bramfield Lane, Waterford, Marsh Road, Stanstead Abbotts.

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) And Three Hills Pit, Codicote. (Tel.: Codicote 217.)

TWICKENHAM GRAVEL CO., LTD., Eleanor Cross Road, Waltham Cross. (Tel. 23388.)

WEBB, G., CAMBRIDGE, 35 Magrath Av., Cambridge. (Tel. 59966, 53969, 50353 (night). (See Cambs.)

WINFIELD, HENRY, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208/9.) Pits at Hemel Hempstead, Watford, West Hyde, Rickmansworth. Concrete aggregates, hoggin, building sand.

HUNTINGDONSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

FERRERSAND AGGREGATES, LTD., Northampton Rd. Quarries, Rushden (2354/5). (See Northants.)

GRAVEL PRODUCTS (HUNTS.), LTD., Little Paxton, St. Neots, Hunts. (Tel.: St. Neots 308.) Pits at Little Paxton, St. Neots, Hunts.: and Blunham, Beds.

HOVERINGHAM GRAVELS, LTD. Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

NENE BARGE AND LIGHTER CO., LTD., Market Chambers, Peterborough (Tel. 5534/5) and Ship End Quarries, Wansford, near Peterborough (Tel.: Wansford 384/5.) Roadstone, hardcore, broken stone, ballast, ashes, silica clay and sand.

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) Producers of all grades of washed sand and gravel. Ready mixed concrete. Precast concrete of every description.

WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge. (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)

KENT

BRASTED SAND PITS, Brasted, Kent. (Tel.: 586.) London Office: 10A Ellery Street, S.E.15. (Tel.: New Cross 3337.) Soft and plastering sands, lime and sand-mix dry, hardcore, S.H. bricks, ashes, etc.

BROWN BROS. (SITTINGBOURNE), LTD., Chalkwell Road, Sittingbourne, Kent. (Tel.: Sittingbourne 330.) Sand, ballast, shingle, hoggin, hardcore, clinker, chalk, etc.

CLUBB, J., LTD., Dartford, Kent. (Tel.: Dartford 25431.) Pits in North Kent, Medway area and Sevenoaks district. All washed and crushed gravel aggregates, concreting and building sand.

DIAMOND TREAD CO., (1938), LTD., Ditton Court Quarry, Larkfield, near Maidstone. (Tel.: West Malling 3444.) Quarry owners, tarmacadam, bituminous macadam and dry road stone manufacturers and suppliers. Head Office: 21-22 Old Bailey, London, E.C.4. (Tel.: City 7001—10 lines.)

DIAMOND TREAD CO. (CHART), LTD., Swan Lane Quarries, Little Chart, Ashford, Kent. Quarry owners: tarmacadam, bituminous macadam and dry roadstone suppliers. All inquiries to Area Office: Ditton Court Quarry, Larkfield, near Maidstone, Kent. (Tel.: W. Malling 3444.)

HALL AND CO., LTD., Canning Street, Maidstone. (Tel.: Maidstone 51051); and at Folkestone and Hayes. Pits at Lunsford, near Larkfield, Riverhead. Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.

HARRIS, M. P., AND CO., LTD., Station Road, Paddock Wood, Kent (Tel.: 385.) (See Sussex.)

T. J. METCALF AND SONS, LTD., Town Wharf, West Street, Gravesend, Kent. (Tel.: Gravesend 5244.) Brightlingsea ballast, sand and shingle.

LANCASHIRE

BROOMBYS, LTD., Sandside, Milnthorpe (Tel.: 3251/2), Westmorland. (See Westmorland.)

BUCKTON QUARRY, Broken stone, all grades. (Tel.: Mossley 123.) Or write Main Road, Oldham.

CASTLETON SAND AND GRAVEL QUARRIES, LTD., Trows Lane, Castleton, near Rochdale. (Tel.: Castleton 57100.) Lee Quarries, Bacup. (Tel.: Bacup 287.) Washed pit sand, crushed washed stone aggregates; pitching stone.

CROXDEN GRAVEL, LTD., Cheadle, Stoke-on-Trent, Staffs. (Tel.: Tean 393.) Manchester Office: Blackfriars 3766/7. Plant capacity, 2,000 tons per day.

HARTLEY, JOHN, W., LTD., Lundsfield Quarry, Carnforth, Lancs. (Tel.: Carnforth 100.) Large producers of highest quality washed sands, clean washed natural pebble and crushed gravel aggregates for all construction purposes.

HILTON GRAVEL, LTD., Rice Street, Liverpool Road, Manchester, 3. (Tel.: Deansgate 5455 and 5456.) Quarries at Cheadle, Staffs. (Tel.: Tean 241.) And at Longton, Stoke-on-Trent. (Tel.: Longton 32196.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

HULLAND GRAVEL CO., LTD., Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., all sizes and gradings of crushed granite aggregate. Immediate delivery ex stock.
Liverpool and Preston Depots:
Office: 7 Picton Road, Liverpool, 15.
(Tel.: Sefton Park 7261.)
Manchester Depot:
Office: Cornbrook Road, Manchester, 15.
(Tel.: Trafford Park 3830.)

TERN MILL SAND AND GRAVEL CO., LTD., Alvington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

TRENTHAM GRAVL CO., LTD., Lordsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity: 2,000 tons per day.

WITHERS LIMESTONE, LTD., Back Lane Quarry, Carnforth. (Tel.: Carnforth 427.) Graded lime-stone aggregate to B.S.S., all sizes. Immediate delivery ex stock.

X.L. GRANITE (INGLETON), LTD., Head Offices: Clapham, via Lancaster. (Tel.: Clapham 318/9.) Works Tel.: Ingleton 231. All sizes and gradings of Ingleton granite aggregate.

LEICESTERSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8, or London Office—VIGilant 2530.) Best Leicester-shire grey granite, dry and coated gradings to any specification, cold asphalt and wet mix. Prompt rail/road delivery.

CLIFFE HILL GRANITE CO., LTD., Markfield, near Leicester. (Tel.: Markfield 561/2/3.) Granite aggregates to B.S.S. All sizes. Tarred and bituminous granite, concrete slabs and kerbs. ¼in. washed granolithic aggregate.

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298. Duston 505.) (See Northamptonshire.)

ENDERBY AND STONEY STANTON GRANITE CO., LTD., 21 New Walk, Leicester. (Tel. 20891.) Quarries at Enderby. London Offices: Redland House, 42 Kingsway, London, W.C.2. (Tel.: Holborn 2876.)

HILTON GRAVEL, LTD., Hemington Fields, near Shardlow, Derby. (Tel.: Shardlow 266.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

MOUNTSORREL GRANITE CO., LTD., 21 New Walk, Leicester. (Tel. 20891.) Quarries at Mountsorrel, near Loughborough. ¹₂in. pink granite a specialty. London Office: Redland House, 42 Kingsway, London, W.C.2. (Tel.: Holborn 2876.)

WANLIP GRAVELS, LTD., Wanlip Road, Syston, Leicester. Any size or grading, scientifically balanced ballast. All to B.S.S. (Tel.: Syston 2327 and 2797.)

WREAKE VALLEY GRAVELS CO., LTD., Melton Mowbray. (Tel.: Pit—Rotherby 205 or head office Melton 2488.) All grades washed aggregates and sand, transit mixed concrete.

LINCOLNSHIRE

CONINGSBY SUPPLY CO., LTD., Registered Office: The Broadway, Woodhall Spa, Lincs. (Tel.: Woodhall Spa 2322.) Screened limestone, hardcore, pitching, filling, flint, hoggin. Ex quarries or delivered.

DOW-MAC (PRODUCTS), LTD., Tallington, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)

GIBBONS, F. B., AND SONS, LTD., Registered Office: Welby House, Market Deeping, near Peterborough. (Tel.: Market Deeping 3321/2383.) Pits at Langtoft, near Peterborough. (Tel.: Market Deeping 2210.) All grades washed sand and aggregates.

HARTSHOLME GRAVEL AND SAND CO., LTD., Hartsholme Wood, Doddington Road, Lincoln. Sole selling agents: Hartsholme Sales, Ltd., 17 West Parade, Lincoln. (Tel.: Lincoln 23391.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

HURDISS, J. W., LTD., Victoria Street, Grimsby. (Tel.: Grimsby 36571), and Caistor (Tel.: Caistor, Lincs., 281). Building, plastering, concreting sand, also gravel, ballast, hoggin & roadmaking materials.

PETERBOROUGH QUARRIES, LTD., Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355—3 lines.) Quarry at Ropsley, all grades of hardcore and broken stone. (See also Northants.)

POLLARD, C., AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. Pits at Tallington, near Stamford, Lincs. (Tel.: Market Deeping 2140.) All grades washed sand and aggregates. For "Supercrete" ready mixed concrete, 'phone Market Deeping 3132.

SCREETON BROTHERS (BARTON-UPON-HUMBER), LTD., 21 Castledyke West, Barton-on-Humber, Lincs. (Tel.: Barton 2189.) All grades washed sand and gravel, roadstone, hardcore, washed silica sand.

TRENTFORD GRAVELS, LTD., Head Office: Deansgrove, Grimsby. (Tel.: Grimsby 5354.) Washed and graded gravel and sand, roadstone, hardcore, slag, tarmac, ashes, etc. Pits and quarries throughout the county.

LONDON

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BUCBRICKS COMPANY, LTD., 57 Piazza Chambers, Covent Garden, London, W.C.2. (Tel.: Covent Garden 0534.) All grades of washed aggregate, sand, building sand, asphalt, grit. Sterilised or sand accurately graded to buyers' requirements.

COX, H. AND SONS, LTD.,
33 Southampton Way,
Camberwell, S.E.5.
(Tel.: Rodney 2215—3 lines.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, N.W.3. (Tel.: HAMpstead 8044/8.) Granite limestone or slag, coated or dry, all sizes and pitching, granite kerb and setts, felspar quartz and other minerals by road or rail, or ex London stock.

DORSET LIMESTONES, LTD., Bumpers Lane, Easton, Portland, Dorset. (Tel.: Portland 2207/8.) (For details, see Dorset.)

DRINKWATER, W. W., (WILLESDEN), LTD., Dudden Hill Lane, Willesden, N.W.10. (Tel.: GLAdstone 6400/5.) Pits: Rush Green, Denham, Bucks. (Tel.: Denham 2241/2/3.) Also Staines Road, Hounslow Heath, Middlesex. (Tel.: Hounslow 6223/3.)

GABRIEL, C., LTD., Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Enfield and Hertford.

GREENHAM SAND AND BALLAST CO., LTD., Chertsey Road, Feltham. (Tel.: Feltham 2285/7.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.

HALL AND CO., LTD., Chantrey House, Eccleston Street, S.W.1. (Tel.: Sloane 7122), and at East Dulwich, Poplar and Wandsworth. Gravel aggregates, concreting, plastering and building sand.

HARTIGAN, G. F. X., LTD. Washed sharp sand to B.S.S. 882. (See Buckinghamshire.)

KEEN, W. J., AND SONS, 18 Granville Road, Edmonton, Essex. (Tel.: Epping 2520.) All sands, ballast, shingle and hardcore supplied.

LONDON BALLAST CO., LTD. (Tel.: Paddington 5064). 155A Porchester Terrace North, Paddington, W.2.

READ, P. T., LTD., Gales Gardens, Bethnal Green, E.2. (Tel.: Shoreditch 9128/9.) All sands, ballast and shingles supplied and delivered; also ready mixed concrete. Pits: Fairlop Airfield, Forest Road, Ilford, Essex. (Tel.: Hainault 6111/2/3.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

MERIONETHSHIRE

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

MIDDLESEX

CROSS, GEO. C., AND CO., LTD., Uxbridge Road, Southall. (Tel.: Southall 2264/5/6.) Concrete aggregates, hardcore, excavations, demolitions.

DRINKWATER, W. W. (WILLESDEN), LTD., Staines Road, Hounslow, Hth., Middx. (Hounslow 6222/3.)

GABRIEL, C., LTD., Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Enfield and Hertford.

CONTRACTORS' GUIDE TO AGGREGATES

MIDDLESEX

CHERTSEY SAND AND BALLAST CO., LTD., Chertsey Road, Feltham. (Tel.: Feltham 2285/7.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.

EDMONDSON, S., 100/104 Harlington Road, Hillingdon, Middlesex. (Tel.: Uxbridge 3651/2/3.) Sand, ballast, shingle, hardcore, ashes, excavation and demolition.

HALL AND CO., LTD., Chantrey House, Eccleston Street, S.W.1 (Tel.: Sloane 7122), and at Ashford and Brentford. Pits: Bedfont and Shepperton. Gravel aggregates, concreting, plastering and building sand.

LONDON BALLAST CO., LTD. (Tel.: Paddington 5064), 155A Porchester Terrace North, Paddington, W.2.

TWICKENHAM GRAVEL CO., LTD., Feltham Hill Road, Hanworth. (Tel.: Feltham 2638.)

WOOD, P. T., LTD., Gales Gardens, Bethnal Green, E2. (Tel.: Shoreditch 9128/9.) All sands, ballast and shingles supplied and delivered; also ready-mixed concrete. Pits: Edmonton Gravel Pits, Montagu Road, N.9 (Tel.: Shoreditch 9128/9), and Fairlop Airfield, Forest Road, Ilford. (Tel.: Hainault 6111/2.)

STUART MACEY, LTD., Gordon Road, High Wycombe. (Tel.: High Wycombe 2591/2.)

MID-WALES

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Quarries in Radnorshire. (Tel.: Kington 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

MONMOUTHSHIRE

MONMOUTHSHIRE ASSOCIATED QUARRIES, LTD., Head Office: 38 Chepstow Road, Newport, Mon. (Tel.: Newport 58311/2.) Suppliers of all grades of concrete aggregates, road metalling, pitching stone, tarmacadam and bituminous macadam in limestone, dolomite and blue pennant stone. Quarries throughout the county.

PENTREMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

WHITECLIFF QUARRIES AND BRICKWORKS, LTD., Cinderford, Glos. (Tel.: 3158/9.) (See Gloucestershire.)

MONTGOMERYSHIRE

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

NORFOLK

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8.; or London: VIGilant 2530.) (For details, see Leics.)

CHAMPION, P. C., H., LTD., Station Road, Terrington St. Clement, near King's Lynn. (Tel.: Terrington St. Clement 248.) Washed and screened gravel roadstone, washed sharp and fine sands.

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 3411/2/3/4 and Coney Weston 12.) Pits at St. Ives and Knettishall, near Thetford.

SNETTERTON STONE QUARRIES, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208/9.) Pits at Snetterton. Concrete aggregates, building sand.

THORPE GRAVEL PITS, LTD., Harvey Lane, Norwich. (Tel.: Norwich 33243/4.) Washed and graded aggregates, stone and gravel delivered to all parts of Norfolk and Suffolk.

NORTHAMPTONSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8.; or London: VIGilant 2530.) (For details, see Leics.)

BICESTER STONE CO., LTD., Stratton Audley, Bicester, Oxon. (Tel.: Stratton Audley 391/2.) Manufacturers and suppliers of all grades limestone, tarmacadam, dry, pitching stone, hardcore, etc.

BRAYBROOK, E. W., LTD., Newton Road, Higham Ferrers, Northants. (Tel.: Rushden 3344 and 1345.) All grades of washed and graded aggregates to B.S.S., building sand, hardcore.

COMMAC (PRODUCTS), LTD., Tallington, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) Producers of building and walling stone, roadstone, hardcore, broken stone, ashes, sand, gravel and hoggin. Immediate delivery throughout Northamptonshire.

EBBERSAND AGGREGATES, LTD., Northampton Road Quarries, Rushden, Northants. (Tel.: Rushden 2354/5.) Largest producers in the county of all grades of high quality concrete aggregate to B.S.S. Deliveries throughout Northamptonshire and adjoining counties.

GIBBONS, F. B., AND SONS, LTD., Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details see Nottinghamshire.)

KETTON STONE CO. (Prop. Andrew's Garage), Ketton, near Stamford. (Tel.: Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. Quarries at Ketton.

MACKANESS, A. J., LTD., Ransome Road, Northampton. (Tel.: Northampton 589.) Producers of all grades of washed aggregates. Building sand. Admortar (lime/sand mortar). Prompt deliveries.

NENE BARGE AND LIGHTER CO., LTD., Market Chambers, Peterborough (Tel.: 5334/5), and Ship Hill Quarries, Wansford, near Peterborough (Tel.: Wansford 384/5). Roadstone, hardcore, broken stone, ballast, ashes, silica clay and sand.

NORTHAMPTONSHIRE

NEWARK (PETERBOROUGH) SAND AND GRAVEL CO., LTD., 127 Eastfield Road, Peterborough. (Tel.: Peterborough 2091.) All grades washed and screened gravel and sand.

PETERBOROUGH QUARRIES, LTD., Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Eight quarries supplying all grades of hard-core and broken stone. Also Wetmix at Yarwell, Wansford. All grades gravel and sand at Maxey.

POLLARD, C. AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)

STORTON, F. E., LTD., Weedon Road, Northampton. (Tel.: Northampton 3358.) Producers of washed gravel and sand to B.S.S.

NORTH WALES

CAWOOD, WHARTON AND CO., LTD., Pistyll Gwyn Quarry, Llanarmon, near Mold. (Tel.: Llanarmon-yn-Ial 27.) Crushed limestone and tarred macadam, all grades.

CHESHIRE AND NORTH WALES TARRED MACADAM CO., LTD., Llanarmon, near Mold. (Tel.: Llanarmon-yn-Ial 43.) Hard, broken limestone; dry and coated to B.S.S. Inquiries to Registered Office — Market Chambers, Tower Square, Tunstall, Stoke-on-Trent. (Tel.: Stoke-on-Trent 88094.)

ENSTON BROS., Llwyn Isaf Quarry, Clynnogfawr, Caernarvon. (Tel.: Clynnogfawr 297/8.) All sizes crushed, washed natural sand and gravel. Highest quality. Precast concrete products, ex our Griffiths Crossing Factory, Caernarvon. (Tel.: Caernarvon 2535/6.) Crushed granite ex our quarry, Pengwern and Gwydyr Quarries, Ltd., Trefriw, Llanrwst, Denbighshire. (Llanrwst 38.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., Quarries at Penmaenmawr (Tel.: 2256/8), and at Trevor (Tel.: Clynnogfawr 223), Caernarvonshire. All sizes and gradings of crushed granite aggregate. Any quantity per day; immediate delivery ex stock. Coated granite also available.

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

NOTTINGHAMSHIRE

AIZLEWOOD, DOUGLAS E., Bow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone: all grades of washed gravel and sands.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

GLEN QUARRIES, LTD., Central Chambers, Wellgate, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concreting sand, building sand, plastering sand and crushed gravel; could be collected ex quarry or delivered.

GUNTHORPE GRAVELS (1958), LTD. (Tel.: Nottingham 77357; and Works: Lowdham 2131.) An associate company of T. C. Campbell, Ltd.) All grades washed gravel and sand to B.S.S.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) Quarries at Hoveringham, Holme Pierrepont, Colwick, Bleasby and Newark. Other quarries throughout the country—deliveries in 21 counties. All grades of washed gravel and sand to any specification. Crushed quartzite for surface dressing of roads a speciality. Combined plant capacity 20,000 tons per day.

NEWARK GRAVEL AND CONCRETE CO., LTD., Grove Street, New Balderton, Newark, Notts. (Tel.: Newark 401.) All grades washed sand and aggregates.

NORTH NOTTS. GRAVEL CO., LTD., Bellmoor, Retford, Notts. (See Yorkshire.)

SALISBURY AND WOOD, LTD., Matlock. (Tel.: 272/273.) (For details, see Derbyshire.)

OXFORDSHIRE

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

BICESTER STONE CO., LTD., Stratton Audley, Bicester, Oxon. (Tel.: Stratton Audley 391/2.) Manufacturers and suppliers of all grades limestone, tarmacadam, dry, pitching stone, hardcore, etc.

CURTIS, J., AND SONS, LTD., Botley Works, Oxford. (Tel.: Oxford 41081/2/3.) Sand and all grades of washed aggregates. Pits at Radley, near Abingdon. (Tel.: Abingdon 441.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) (See Northamptonshire.)

GRUNDON, S. (EWELME), LTD., Eweime, Oxon. (Tel.: Eweime 20 and 37.) London Office (Tel.: Uxbridge 36511/2/3). All grades washed aggregates. Path hoggin, broken stone, building sand.

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.

HALL AND CO., LTD., Cardiff Road, Reading. (Tel.: 50458.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

SNETTERTON STONE QUARRIES, LTD., Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1208/9.) Roadstone, Costwold building and walling stone.

RADNORSHIRE

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Quarries in Radnorshire. (Tel.: Kington 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

RUTLAND

GIBBONS, F. B. AND SONS, LTD., Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

KETTON STONE CO. (Prop.: Andrew's Garage), Ketton, near Stamford. (Tel.:Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. Quarries at Ketton.

PETERBOROUGH QUARRIES, LTD., Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Quarry at Greetham, all grades of broken stone and hardcore. (See also Northamptonshire.)

POLLARD, C., AND SON (TALLINGTON), LTD., Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)

SHROPSHIRE

BALLIDON QUARRIES, LTD., Balidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes; coated limestone to B.S. 802 and 1621 and wet-mix; large output; reliable deliveries.

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

DORRINGTON SAND AND GRAVEL QUARRIES, near Shrewsbury. (Tel.: Dorrington 276.) Supplies of ready mixed concrete, building sand, washed sand, washed and crushed gravel.

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Kington. (Tel. 421.) (See Herefordshire.)

SALOP SAND AND GRAVEL SUPPLY CO., Admaston, Wellington (Tel.: 961), Salop.

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

TRENTHAM GRAVEL CO., LTD., Lordsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity: 2,000 tons per day.

SOMERSET

ASHAM QUARRY CO., LTD., Chantry, Frome. (Tel.: Nunney 351.) All sizes limestone block, broken and aggregates. Tarred and bituminous macadam to B.S. Ex quarry and delivered.

DANGERFIELD, F. J., AND CO., LTD., 216A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

HALL AND CO., LTD., Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 63001.) Gravel aggregates, concreting, plastering and building sand.

WAINWRIGHT, JOHN, AND CO., LTD., Shepton Mallet. (Tel.: Shepton Mallet 2366/7.) All sizes basalt, coated basalt, concrete aggregates, filtering media, building blocks and slabs.

SOUTH SCOTLAND

ESK MANUFACTURING CO., LTD., Cumberland. (Tel.: Carlisle 2-4941.) (For details, see Cumb.)

SOUTH WALES

AMALGAMATED AGGREGATES, LTD., 97 Cowbridge Road East, Cardiff. (Tel.: Cardiff 25249.) All sizes crushed and graded aggregate, dry or washed. High calcium or dolomitic limestone, also all grades coated stone. Quarries near Newport, Cardiff, Bridgend, Pontypridd.

HALL AND CO., LTD., 34 High Street, Narberth (Tel.: 74.)

PENMAENMAWR AND WELSH GRANITE CO., LTD., 18 Quay Street, Cardiff. (Tel.: 20646/7.) All sizes and gradings of crushed granite aggregate from our Cardiff and Swansea Dock Depots. Dolomite aggregates from Ewenny Quarry, Bridgend. (Tel.: Bridgend 3786.) Coated stone also available.

SESSIONS AND SONS, LTD., West Dock, Cardiff. Producers of coarse and fine aggregate, dredged and graded to British Standards. Branches Newport and Swansea. (Also Gloucester and Hereford.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

SOUTH WALES SAND AND GRAVEL CO., LTD., Head Office: P.O. Box 8, Beaufort Buildings, Swansea. (Tel.: Swansea 53071.) Sand and gravel merchants, builders' merchants, Pennant Quarry owners slag, hardcore, ashes, filling, graded clinker filter media. Depots: Cardiff, Newport, Barry, Port Talbot, Briton Ferry, Swansea, Llanelly.

STAFFORDSHIRE

BALLIDON QUARRIES, LTD., Balidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes.) coated limestone to B.S. 802 and 1621 and wet-mix; large output; reliable deliveries.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

CROXDEN GRAVEL, LTD., Cheadle, Stoke-on-Trent, Staffs. (Tel.: Tean 393.) Manchester Office: Blackfriars 3766/7. Plant capacity 2,000 tons per day.

DUNNING AND SON, LTD., Wood End Gravel Pits, Hednesford. (Tel.: Hednesford 302/325/251.) All grades of washed sand and gravel supplied to B.S.S.

HILTON GRAVEL, LTD., Cheadle, Staffs. (Tel.: Tean 241.) Also at Longton, Stoke-on-Trent (Tel.: Longton 32196) and Stretton, Burton-on-Trent (Tel.: Burton 6061.)

HULLAND GRAVEL CO., LTD., Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorton, Manchester, 21. (Tel.: Chorlton 2274/5.)

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385-386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day

CONTRACTORS' GUIDE TO AGGREGATES

STAFFORDSHIRE

RUGELEY GRAVEL CO., LTD., Rugeley Quarries, Rugeley, Staffs. (Tel.: Rugeley 251/2.) Entirely modern plant. Sand classifiers. Finest aggregates to B.S.S. Large output.

SALISBURY AND WOOD, LTD., Matlock. (Tel. 272/273.) (For details, see Derbyshire.)

SHIRE OAK GRAVELS, LTD., Litchfield Road, Walsall Wood, Staffs. Washed crushed gravel and washed sand. (Tel.: Brownhills 3253.)

TERN HILL SAND AND GRAVEL CO., LTD., Almington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) Pit sand, concrete sand, and all grades of washed crushed gravel. Hardcore, clinkers, asnes and hoggin.

TRENTHAM GRAVEL CO., LTD., Lordsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plastering sand. Plant capacity 2,000 tons per day.

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 366.) Graded limestone for all purposes. Ground limestone.

WINDMILL SAND AND GRAVEL QUARRIES, LTD., Cannock Road, Wolverhampton. (Tel. 31108.) Concrete aggregates, plastering building and asphalt sand. All to B.S.S.

SUFFOLK

ALRESFORD SAND AND BALLAST CO., LTD., Alresford Creek, near Colchesteer, Essex. (Tel.: Wivenhoe 341/494.) Suffolk area pits at Bures and Boxford. All grades washed aggregate, sand; also hoggin.

BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGilant 2530.) (For details, see Leics.)

DICKERSON, M. (CONTRACTORS), LTD., Gloucester Street, Cambridge. (Tel.: Cambridge 56973/4.) (See Cambs.)

HALL AND CO., LTD., West End Road, Ipswich. (Tel.: Ipswich 55593/4.) Pits at Kesgrave and Homersfield, near Harleston. Gravel aggregates, concreting, plastering and building sand.

MACLAREN BROS. (KENNETT), LTD., Station Road, Kennett, Cambs. (Kentford 333/4.) (See Cambs.)

ST. IVES SAND AND GRAVEL CO., LTD., 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4, Coney Weston 12 and Halstead 2323.) Pits at St. Ives, Knettishall, near Thetford, and Gosfield, near Halstead.

THORPE GRAVEL PITS, LTD., Harvey Lane, Norwich. (Tel.: Norwich 33243/4.) (See Norfolk.)

WEBB, G., CAMBRIDGE, 35 Magrath Av., Cambridge. (Tel. 59966, 53969, 50353 (night).) (See Cambs.)

SURREY

COFF, HARRY A., LTD., Buckhurst Hill, Cheapside, Ascot, Berks. (Tel. 1026/7.) (See Berkshire.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

EASTWOOD SALES, LTD., Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Longside Sand and Ballast Pit, Thorpe, nr. Egham. (Tel.: Egham 3121.) Runfold Sand and Ballast Pit, Runfold, nr. Farnham, Surrey. (Tel.: Runfold 2020.) Producers and distributors of all grades of washed aggregates.

HALL AND CO., LTD., Victoria Wharf, Croydon. (Tel.: Croydon 4444.) Other main depots at Coulsdon, Epsom, Mitcham, Oxted, Purley, Redhill, Tadworth and Woking. Pits at Send and Redhill. Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.

HARRIS, M. P., AND CO., LTD., Kingston Road, Leatherhead, Surrey. (Tel.: 3497.) (See Sussex.)

JANES AND CO., LTD., 2C Buckingham Avenue, Slough. Sand, aggregates, hardcore, ashes, bulldozing & bulk excavation. (Tel.: Slough 20361/2/3.)

LONDON BALLAST CO., LTD. (Tel.: Paddington 5064., 155A Porchester Terrace North, Paddington, W.2.

MARCO (AGGREGATES), LTD., Pit: Norlands Lane, Thorpe, near Egham. (Tel.: Chertsey 3401.) Producers and distributors of high-grade washed sand, shingle, ballast, etc.

MARCO (CROYDON), LTD., Hampton Road, West Croydon. (Tel.: THOrnton Heath 4236/7/8.) All building and road aggregates.

SURREY

MIDLAND AGGREGATES, LTD., Eversley, near Basingstoke, Hants. (Tel.: Eversley 2250.) Washed and pit sand and all aggregates.

SANDY CROSS SAND CO., LTD., Seale Lane, Farnham, Surrey. (Tel.: Runfold 2063.) Sharp sand.

TWICKENHAM GRAVEL CO., LTD., Government Road, Ash Vale. (Tel. 2349.)

WELLS, A. L., AND SON, LTD., Builders' Merchants, Garlands Road, Leatherhead. (Tel. 3018/9.) Sand aggregates, hardcore, ashes, cement. Clinker block manufacturers.

WINTON, WM. R., LTD., Send, Woking. (Tel.: Ripley 2454/5.) All grades sand, shingle, ballast, hoggin and ashes. Clinker block manufacturers.

SUSSEX

AVANN, F., Cavendish Avenue, Eastbourne. (Tel. 4969/70.) Washed and graded ballast, sand, bricks, breeze and concrete blocks, hardcore, clinker, tarmac, etc., supplied.

HALL AND CO., LTD., 16 Chapel Road, Worthing. (Tel.: Worthing 7840.) Other main depots at Bexhill, Bognor, Crowborough, East Grinstead, Eastbourne, Horsham, Hove and Seaford. Pits at Washington, Crumbles, near Eastbourne, Chichester, Rye Harbour, Midhurst, Shoreham and Portslade. Gravel aggregates, concreting, plastering and building sand. Surecrete precision-mixed concrete.

HARRIS, M. P., AND CO., LTD., West Station Goods Yard, Bexhill (Tel. 61), Cavendish Place, Eastbourne (Tel. 3800); Dominion Road, Worthing (Tel. 8822); Whitbread Lane, Northiam (Tel. 2211); Station Goods Yard, Haywards Heath (Tel. 1750); Crawley Road, Horsham (Tel. 3366); The Hornet, Chichester (Tel. 4181). All grades aggregates, hardcore, clinker, ashes, etc.

WRIGHT, C., AND SONS (B'TON), LTD., 19 Bristol Gardens, Brighton, 7. (Tel.: Brighton 63357 and 62406.) All-in ballast, washed and crushed shingle, sand, ashes, hardcore, chalk, bricks, etc.

WARWICKSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 302.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621, and wet-mix; large output, reliable deliveries.

DUSTON STONE QUARRIES, LTD., New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) (See Northamptonshire.)

HAINES, H. (WITNEY), LTD., Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.

HALL AND CO., LTD., 188 Lichfield Road, Four Oaks, Sutton Coldfield. (Tel.: Four Oaks 356.) Gravel aggregates, concreting, plastering, building sand.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

JUDKINS, LTD., Granite Quarries, Tuttle Hill, Nuneaton. (Tel.: Nuneaton 3411—10 lines.) All sizes washed granite aggregate, tarred and bituminous macadam. Slab mix a speciality.

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel.: Oakamoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

SHIRE OAK GRAVELS, LTD. (See Staffordshire.)

WARDLOW LIMESTONE, LTD., Cauldon Low, N. Staffs. (Tel.: Oakamoor 366.) (For details, see Staffs.)

WARWICKSHIRE QUARRIES, LTD., Bedworth Road, Nuneaton. (Tel.: Coventry 67821.) Red shale, screened for roads, car parks, sports grounds, tennis courts, etc., attractive colour.

WESTMORLAND

BROOMBYS, LTD., Sandside, Milnthorpe, Westmorland. (Tel.: Milnthorpe 3251/2.) All grades washed, crushed gravel, sand, limestone, granite chippings, pitching, tarmacadam, rockery stone, etc.

ESK MANUFACTURING CO., LTD., Cumberland. (Tel.: Carlisle 2-4941.) (For details, see Cumb.)

WILTSHIRE

BULL BROS., S. AND L., LTD., 126A High Street, Winchester. (Tel. 2264.) (See Hampshire.)

COKE, T. F. (CHELTENHAM), LTD., 267 Gloucester Road, Cheltenham. (Tel. 4717/4874.) (See Glos.)

DANGERFIELD, F. J., AND CO., LTD., 261A Finchley Road, London, N.W.3. (Tel.: HAMpstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

WILTSHIRE

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

MOREYS (VERWOOD), LTD., Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggin, path gravel.

TAYMAC, LTD., Wootton Bassett, near Swindon, Wilts. (Tel.: Wootton Bassett 391—5 lines.) Cotswold stone, hardcore, washed and graded aggregates, building sand.

WORCESTERSHIRE

BALLIDON QUARRIES, LTD., Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621, and wet-mix; large output; reliable deliveries.

BENGRY AND SONS, LTD., Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

KEVIN LIME CO., LTD., Oakamoor, Staffs. (Tel. Oakamoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

NASH ROCKS STONE AND LIME CO., LTD., Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

OLD RADNOR TRADING CO., LTD., Kington. (Tel. 421.) (See Herefordshire.)

SHAKEMANTLE QUARRY CO., LTD., Cinderford, Glos. (Tel.: Cinderford 3197.) "Doura" Facing, Engineering and Common Bricks in terra-cotta, red and golden brown. (See Glos.)

YORKSHIRE

AIZLEWOOD, DOUGLAS E., Bow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sand.

DENNIFF, ALAN S., LTD., Kiveton Park, nr. Sheffield. (Tel.: Kiveton 446/7/8.) Truck-mixed and pre-mixed concrete, washed and crushed gravel, concreting sand, bldg. sand, crushed and graded stone.

GLEN QUARRIES, LTD., Central Chambers, Wellgate, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concreting sand, building sand, plastering sand and crushed gravel; could be collected ex quarry or delivered.

HOVERINGHAM GRAVELS, LTD., Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

NORTH NOTTS. GRAVEL CO., LTD., Bellmoor, Retford, Notts. (Tel.: Retford 2219—3 lines.) Concrete aggregates and sands, ourstin chippings, building sands. Quarries at Bellmoor and Lound, near Retford and Worksop. Truck-mixed concrete plants at Retford and Worksop, Notts., Ossett, Yorks., and Wath-on-Dearne, Yorks.

SALISBURY AND WOOD, LTD., Matlock. (Tel. 272/273.) (For details, see Derbyshire.)

SLATER BROS. (WHITLEY), LTD., Whitley Bridge, near Goole. (Tel.: Whitley Bridge 300 and 315.) Washed and crushed gravel. Concreting sand, building sand, crushed and graded stone, natural white stone for crazy paving, terrace walls & house building.

STANLEY FERRY GRAVEL CO., LTD., Harvest Union Building, City Square, Leeds, 1. (Tel.: Leeds 26361.) Washed, crushed and natural graded sand and gravel. Supplies to specification, large daily production. Centre of Yorks. West Riding market. Pit: Wakefield.

WELBECK SAND AND GRAVEL CO., Parkhill, Wakefield. (Wakefield 4454.) Washed sand and gravel.

WEST RIDING GRAVEL CO., Norwich Union Building, City Square, Leeds, 1. (Tel.: Leeds 23562.) Modern 1,000-ton daily plant produces washed grit and pit sands. All aggregates to specification. Centre of Yorks. West Riding to Lancs. border. Pit: Wakefield.

WOMERSLEY GRADED STONE CO., LTD., Womersley Quarry, nr. Doncaster. (Tel.: Wentbridge 208.) Crushed and graded calcium carbonate limestone aggregates. Triple-screened, first-class products, high crushing strength, eminently suitable for concreting, tarring and road making. Prices and analysis on application. Quarry: 2 miles from Darrington, A.1.

X.L. GRANITE (INGLETON), LTD., Head Office: Clapham, via Lancaster. (Tel.: Clapham 318/9.) Works Tel.: Ingleton 231. All sizes and gradings of Ingleton granite aggregate.

SUBSCRIPTION ORDER FORM

To THE CONTRACT JOURNAL CO. LTD.,
32 SOUTHWARK BRIDGE ROAD, LONDON, S.E.1

Please forward "THE CONTRACT JOURNAL" *each week for which*
I/we enclose £.....

Name.....
(BLOCK LETTERS)

Full postal address.....
(BLOCK LETTERS)

.....

Occupation/Business.....
(For Readership Classification Purposes Only)

SUBSCRIPTIONS
£5 - 4 - 0
per year, post free
£2 - 12 - 0
half-yearly, post free
Payable in Advance

4302

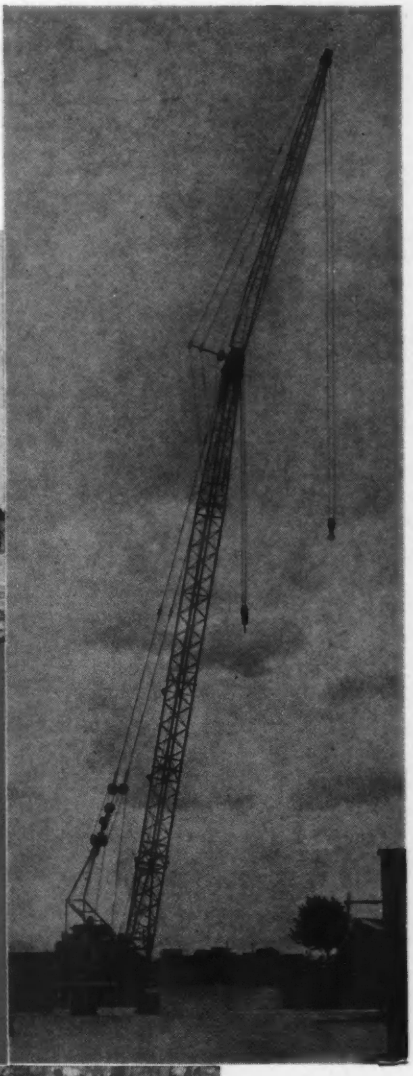
THE INDEX TO DISPLAYED ADVERTISEMENTS WILL BE FOUND ON PAGE 728

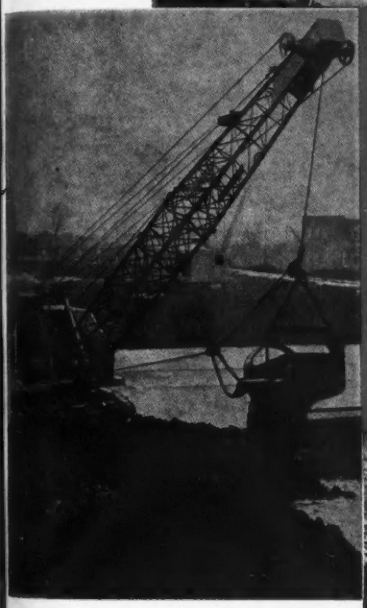
London: Printed and published by the Proprietors, The Contract Journal Company, Ltd., 32 Southwark Bridge Road, S.E.1. Thursday, December 7, 1961. Registered at the General Post Office as a newspaper.

Each one tailor-made for a specific job

Each one unbeatable in its class...







PRIESTMANS'

PRIDE OF LIONS



It is no mere claim, but proven fact that money cannot buy a better machine (in its size-range) than the Priestman Lion. As excavator, shovel, crane or dragline, the Lion has most working advantages; achieves most output, is easiest to operate and needs least maintenance.

It repays its own cost faster, too. In any—in all—its forms, Priestman are proud of the Lion. As you will be when you too are a Lion-owner.

- *Full Air Control*
- *Cross-Roll Bearing Slewing Ring*
- *Fully-enclosed Pump-lubricated Bearings*
- *And every quality feature that can be built into an excavator/crane this size*

The World's most advanced Excavator/Crane of its size

PRIESTMAN LION III

Full range of front-end equipments up to 1 cubic yard capacity

PRIESTMAN BROTHERS LIMITED · HEDON ROAD · HULL · PHONE: HULL 75111 · TELEX: HULL 52120 · TELEGRAMS: 'PRIESTMAN HULL'

Parts, Sales and Service Depots at HULL, LONDON, BIRMINGHAM and GLASGOW

BCA

Keeping up with the Jones's!



To keep up with the Jones's in crane design, construction and service, takes some doing. They are unbeatable. But when your load is on the hook of a Jones Crane, then 'keeping up' with the Jones's is child's play—simple and safe. And so is hoisting. And lowering. And luffing. And slewing. And manoeuvring in tight corners.

There is a vast range of Jones Cranes — mobile — rail — and lorry-mounted — lifts up to 20 tons — jibs to 90 feet.

Jones cranes

3 years guarantee - Special credit facilities
Unequalled after-sales service - Part exchange scheme

THE 600 GROUP OF COMPANIES

Distributed in the United Kingdom by
GEORGE COHEN SONS & COMPANY LIMITED, Wood Lane, London, W.12

Designed, Manufactured and Exported by their Associates
K & L STEELFOUNDERS AND ENGINEERS LIMITED, Letchworth, Herts.